Action Request System™ Troubleshooting and Error Messages Guide

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Preface

Audience

This guide is written for administrators who are responsible for troubleshooting AR System problems and making sure that users have, to the greatest extent possible, uninterrupted access to the AR System tools.

As an administrator, you will need to be familiar with the Action Request System Administrator Tool, User Tool and Notification Tool. This manual assumes that you understand the information contained in the *Action Request System Administrator's Guide* and *Action Request System User's Guide.*

This manual also assumes that you are familiar with the UNIX and Motif environments for mouse and menu-driven applications on UNIX workstations, and/or Microsoft Windows NT for windows workstation. A modest understanding of how to administer distributed applications is also helpful.

Overview of this Document

Chapter 1, "Troubleshooting" provides you with information about some of the most commonly experienced problems you might encounter when using the AR System and tells you what actions to take to resolve these problems.

Chapter 2, "Error Messages" lists most AR System error messages and provides a way of handling the error situation.

Glossary is a list of words and phrases found in this book and their definitions.

The **Index** provides a quick reference to the contents of the above sections.

The end of this manual is padded with many blank pages for you to use as a diary regarding troubleshooting techniques that are applicable to your system configuration. You may wish to use these pages to record information particular to your site's implementation of the Action Request System.

AR System Documents

The ***Action Request System Troubleshooting and Error Messages Guide*** (this manual) provides information to help you identify and solve problems with the AR System.

The ***Action Request System Getting Started Guide and Sample Schemas*** provides an online demonstration showing the use of the AR System in a sample help desk environment and describes how you can use the sample schemas provided with the AR System.

The ***Action Request System Installation Guide*** describes how to install and license the AR System software. There are separate Installation Guides for UNIX and Windows NT environments.

The ***Action Request System User's Guide*** is a how-to description of the operations performed by all users of the AR System. There are separate *User's Guides* for environments supporting the Motif, Macintosh, and Windows graphical user interfaces (GUIs) and for ASCII terminals.

The ***Action Request System Administrator's Guide*** describes how the AR System administrator can use the Administrator and Import Tools to set up the AR System and define its local operations. This manual is also a reference for advanced AR System concepts. Note that there are separate *Administrator's Guides* for the Motif and Windows environments.

The ***Action Request System Programmer's Guide*** is a reference guide for programming with the application programming interfaces (APIs) that come with the AR System.

The ***Action Request System Distributed Server Option Administrator's Guide*** provides information about operating the AR System in a distributed, multi-server environment.

The ***ARWeb Administrator's Guide*** provides details about installing, using, and customizing the ARWeb application so that you can provide access to your company's AR System applications through the World-Wide Web.

The ***Action Request System Help Desk Template Guide*** describes the help desk application that runs in conjunction with the AR System to help you manage your internal help desk organization.

Conventions Used in this Manual

bold font

Indicates that a word is a new or important term.

Example: **filters**.

Initial Caps

Button and menu names and items have the first letter capitalized.

Example: File.

`computer font`

Indicates computer output, including UNIX prompts, an explicit directory, or a file name.

Example: `prompt%`.

Indicates data to be entered by the user.

Example: `adduser &`.

<small italic font>

Indicates a variable directory, file name, or string that you replace with an appropriate directory, file name, or string.

Example: *<ar_config_dir>*.

italics

Indicates a reference to another manual or to a different section within the current manual.

Example: see *AR System Documents*.

Italic type is also used for emphasis.

Example: *All* users will be affected.

Shell Prompts in Command Examples

The following table shows the default system prompt and superuser prompt for the C shell, Bourne shell, and Korn shell.

Table P-1 Shell Prompts

Shell	**Prompt**
C shell prompt	`machine_name%`
C shell superuser prompt	`machine_name#`
Bourne shell and Korn shell prompt	`$`
Bourne shell and Korn shell superuser prompt	#

Troubleshooting 1

As you expand your use of the Action Request System (AR System), you may occasionally experience problems. These problems might arise from a number of sources including how the AR System is installed, how your network is configured, and whether or not resource conflicts occurred.

This chapter provides information about some of the more common problems you might experience and tells you what actions to take to resolve these problems. Included is information about the following topics:

- Information provided by the AR System in the form of diagnostic error messages.
- Common problems with the AR System installation.
- Common problems affecting the AR System server.
- Problems that might occur while using the AR System tools.
- Problems that might occur with the Notification Tool System.
- Problems that might occur with the Full Text Search option.
- Problems that might occur with the electronic mail interface (`armaild`) program.
- Common access control problems.

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Note – This section refers to many AR system files and directories. The directory in which the AR System executables are installed is referred to here as *<ar_install_dir>* (by default, this directory is `\remedy\arserver` for Windows NT and `/usr/ar` for UNIX).

AR System Diagnostic Messages

A full set of diagnostic error and warning messages exists as part of the AR System. When a problem occurs, there is almost always one or more error or warning message(s) reported by the system. These messages often provide you with all of the information you need to determine the cause of a problem. Chapter 2 lists and describes these messages.

Occasionally, it may not be clear from the diagnostic messages alone what you need to do to correct a problem. The remainder of this chapter describes a number of common problems and outlines the process that you should follow to resolve each of these problems. If you are still unable to resolve a problem, or if you encounter a problem that is not covered in this chapter, contact your Remedy Technical Support representative.

Message Reporting

All of the interactive AR System tools (User Tool, Administrator Tool, Notification Tool, and Import Tool) report errors directly to the terminal. If a tool fails during start-up, the error message(s) are reported at the command line from which the program was started.

Server Error Reporting on UNIX

AR System daemons run in the background. These daemons are not associated with a terminal, and thus cannot report errors to a terminal. Instead, all AR System daemon errors are sent to the `syslog` daemon where, depending on the configuration of your system, they are displayed and/or recorded. For a complete discussion of the `syslog` process, see the discussion on the `syslogd` process and the `syslog.conf` file in your operating system reference manuals.

Keep these points about the `syslog` process, specific to the AR System, in mind:

- The AR System daemons send messages about all fatal system and database errors to syslog as type `user.err`. In order to receive these messages, you must configure your `syslog` instance (using `syslog.conf`) to direct all messages of type `user.err` to one or more locations that you define (for example, to direct all messages to the console, specify the console device as `/dev/console`, or direct all messages to a file by specifying a complete path name).
- If a line in `syslog.conf` contains an entry of the form `user.none`, no messages to class `user` are sent to the target on this line. You should either remove `user.none` or have a separate line that explicitly grabs `user.err` messages and sends them to a target you specify.
  For example, the following line specifies that you want all messages delivered to `syslog` that are of the type `user.err` written to the file `/usr/ar/err.log`:

```
user.err    /usr/ar/err.log
```

- In order to activate logging, simply add a line similar to the preceding line to the `/etc/syslog.conf` file and reset logging by sending a `kill -1` signal to the `syslogd` process to cause it to re-read its configuration file.
  All errors are also logged to the file `arerror.log` stored in the directory <*ar_install_dir*>`/db`.

Server Error Reporting on Windows NT

In Windows NT, messages are sent to an event log. To check the contents of the event log, open the group for Administrative Tools. Click on Event Viewer, which opens up the Event Viewer — Application Log window; any Remedy messages will have the Source column set to Remedy Action Request.

All errors are also written to the `arerror.log` file in the <*ar_install_dir*>`\db` directory.

Message Catalogs

All of the messages returned by the UNIX daemon processes are stored in message catalogs (all Windows NT-specific messages are compiled into the software and are not stored in an accessible catalog). This allows for the internationalization of the AR System messages. The catalogs are named

arsystem.cat for Action Request System messages and ntsystem.cat for Notification System messages. The installation process establishes a symbolic link in the default message catalog area to the catalogs installed by the system.

By default, the message catalogs are stored in the following locations on each hardware platform:

Table 1-1 Message Catalog Location

Client Platform	Message Catalog Location Path
HP	/usr/lib/nls/%L/%N
IBM	/usr/lib/nls/msg/%L/%N
Motorola	/usr/lib/locale/%L/LC_MESSAGES/%N
NCR	/usr/lib/locale/Xopen/LC_MESSAGES/%N
SGI	*(Not supported.)*
Solaris	/usr/lib/locale/%L/LC_MESSAGES/%N
SunOS	/usr/share/lib/locale/LC_MESSAGES/%L/%N

In the path names contained in Table 1-1, there are two variables:

- %L specifies the value of the LANG environment variable (C by default).
- %N specifies the name of the message catalog.

For example, the syntax for specifying the AR System message catalog location (assuming the default language environment) on SunOS is:

```
/usr/share/lib/locale/LC_MESSAGES/C/arsystem.cat
```

On some systems, the directory holding the catalogs is mounted as read-only, making it impossible to store a link to the message catalogs. It is also possible that you might want to store the catalogs in some other location. The catalog files are located in the locale directory under the AR System installation directory (by default this is /usr/ar/locale).

Use the NLSPATH environment variable to place the catalogs somewhere other than in the default directory. For example, on SunOS , if the default catalog directory is read-only, you can link to the catalogs by setting the NLSPATH environment variable as follows:

```
setenv NLSPATH /usr/ar/locale/%N:/usr/share/lib/locale/LC_MESSAGES/%L/%N
```

Note – It is always a good idea to include the default directory in the NLSPATH environment variable to make sure that catalogs for other products are still accessible.

See the documentation supplied with your operating system for more information about internationalizing message catalogs.

Message Not in Catalog

Issue:	If you receive the message "Message not in catalog; Message number = <###>", it generally means that a process cannot access the message catalog.
Action:	Check to see that the message catalogs exist, that they are located in the appropriate directory, and that the NLSPATH environment variable is set correctly. Also check the setting of your LANG environment variable to make sure it is set to the correct language. You can unset this variable or you can set it to the default value of C to cause the system to default to using the English language catalog.

Error Message File

If the message catalog is not available,check the error message file. This file is named errors and is stored in the help directory under the AR System installation directory (by default this is /usr/ar/help/errors). This file contains a listing of all of the error numbers and their associated message text. If the message catalog is not available, you can look up the error message for the message number in this file.

Action Request System Error Messages

Most of the error messages issued by the AR System are documented in Chapter 2 contains the text of the error messages followed by a discussion of the causes of the problems and of the potential actions to take to solve the problems that were encountered.

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If you do not understand the error message that you receive or if you need some ideas on what to do about the error, check the discussion in Chapter 2. If it does not provide the information you need, check the troubleshooting tips contained in this chapter.

Note – Some error message text in Chapter 2 may differ slightly from the text actually displayed on-screen; however, the content of the messages should still be clear to you, and the descriptions provided in Chapter 2 still apply.

Debug Modes

Most of the daemons of the AR System have debug modes. These modes allow you to get traces of the operations that are being performed to track whether the programs are performing the operations you expect.

arserverd Debug Modes

The `arserverd` daemon has several debug modes. Since it is the main process for the system, it must be running at all times. Accordingly, it is configured with debug modes that can be activated and deactivated while the program is running.

The available debug modes are:

- SQL
- Filter
- User
- Escalation
- API

To activate them, display the Server Info window by selecting Server Info from the File menu in the Administrator Tool. The Server Info window allows you to activate or deactivate any of the debug modes at any time. The mode is activated or deactivated immediately. This is convenient when trying to trace an individual operation or group of operations.

Whenever a mode is activated or whenever the `arserverd` process is restarted while a mode is active, the log file for that mode is renamed with a `.bak` extension (for example, `/<ar_install_dir>/db/arsql.log.bak`) and a new file is created. So, there are always two copies of the log file (a current one and the previous one).

SQL Debug Mode

SQL debug mode is only available with servers using a SQL database. It logs to a file every SQL command issued to the database, stamped with the time the command was issued and who issued the command. This provides a good picture of what operations the server is performing.

By default, the log file is named `arsql.log` and is located in the `db` directory under the AR System installation directory (for example, `/<ar_install_dir>/db/arsql.log`). You can change the path name or file name for this file on the Server Info window.

Note – This mode of debugging can generate a lot of information very quickly. It is not unusual to have 20MB to 30MB of information logged over the course of one day.

The file consists of a series of SQL commands, one per line with some time and user information. A typical line in the file might look like:

```
<SQL>/* Tue Feb 17 07:37:51 1996 Joe User*/ SELECT C1,C8 FROM T23
...
```

The line starts with a tag that identifies the line as being a SQL logging line. Up to 26 characters of time stamp follow the tag. The time stamp is followed by a single space and then the name of the user performing the operation. The name of the user is padded, if necessary, to take up 30 bytes. The comment is closed and then the SQL command that is performed follows the comment. If a SQL error is encountered as a result of the command, the command is followed by another line with the same header, but instead of the SQL command, a string starting with **** ERROR **** is followed by the text of the error from the database.

This information allows operations to be tied back to the user who performed the operation and allows tracking of long operations. The error messages reported just after the SQL command producing the error are useful when trying to track database problems.

Note – If you are Full Text Search licensed, also log reports of Full Text queries to this log file.

Filter Debug Mode

Filter debug mode is a trace of the execution of all filters. For each operation performed, it indicates all of the filters that were checked during the operation, which ones were executed, and which ones were skipped over. If a filter was executed, a list of the operations performed is also provided.

This mode of debugging is especially useful for checking on the interaction of your filters and for verifying if a filter is performing correctly.

By default, the log file is named `arfilter.log` and is located in the `db` directory under the AR System installation directory (by default this is `/<ar_install_dir>/db/arfilter.log`). You can change the path name or file name for this file on the Server Info window.

The format of this file is not as specific as the SQL debug file. It contains an indication that a filter check was started and then lists each filter that was tested. For each filter reported, a note is written indicating whether or not the filter passed the qualification for the current operation. If the qualification passed, there is information reported about each action that is taken by the filter.

This information allows you to track which filters are being checked, which are firing, and the actions that are being performed.

User Debug Mode

User debug mode is a trace of all of the user activity on the server. It tracks user logins and logouts. It also tracks any users being flushed by time-outs and any failed login attempts. Tracking failed login attempts helps to detect any attempted break-ins to the AR System.

This mode of debugging allows you to see who is connecting to the AR System and when they connect. It indicates floating user license use (and any rejected connections due to all floating licenses being in use) to help you plan for your floating license needs.

By default, the log file is named `aruser.log` and is located in the `db` directory under the AR System installation directory (by default this is */<ar_install_dir>/*`db/aruser.log`). You can change the path name or file name for this file on the Server Info window.

The file contains a line of information for every connection or disconnection from the AR System server. This allows you to track users accessing the system. A typical line in the file might look like the following:

```
Tue Feb 17 07:37:51 1996FIXEDGRANTJoe User
```

The file starts with 24 to 26 characters for the time stamp of the operation. This is followed by 2 spaces and 5 characters containing the type of license being used. The types of licenses are READ, FIXED, and FLOAT. Next are two blank spaces then 13 characters holding the operation being performed. The operations that may be reported are GRANT (a connection was granted), RELEASE (a connection was released by closing a tool), FLUSH (a connection was released by a timeout), ADMIN RELEASE (a connection was released explicitly by an Administrator), REJECTED (a connection request was rejected because no floating licenses were available), or BAD PASSWORD (an attempt was made to log in as this user using an invalid password). The operation is followed by the name of the user. If the type of license is FLOAT, there is generally additional information reporting the number of licenses in use at that time and the number that are available.

Debug Modes in Other Daemons

The other daemons (`ntclientd`, `ntserverd`, `arservdsd`, `arsnmd`, `armaild`, `arovd`, and `arnvd`) and two access control tools (`arcache` and `arreload`) have one debug option that is either on or off for the duration of the run. It is activated using the `-d` (for debug) command line option. The result is a listing to `stdout` of the operations the daemon is performing. This list gives a picture of what is occurring and what is or is not working correctly for the system. It allows you to see exactly what the system is doing and what it likes or dislikes about the operations being performed.

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Note – For information about debugging `ntserverd` and `armaild`, call Remedy Technical Support. These daemons do not exist for Windows NT servers: `ntclientd`, `arservdsd`, `arsnmd`, `arovd`, and `arnvd`.

Problems During Installation

Installation of the AR System is straightforward. Generally, if you run into a problem during the installation process, you can simply correct the problem and then either re-run the installation process starting from the beginning or pick up the installation from where it left off. (See recovery directions in the *Action Request System Installation Guide*.)

What follows are descriptions of some of the more common situations you may encounter during and after installation of the AR System. Not all of the situations described are actually problems; in some cases, you may simply want to modify the way the AR System is installed.

Must be root or administrator to install

Issue: You are attempting to install the AR System but you do not have root or administrator access.

Action: In general, when installing the UNIX AR System you must be logged in as a user who has superuser access since the installation process needs to update some system configuration files and to create some new configuration files in system directories. Log in as root and restart the installation process. When installing the Windows AR System, you must be the Administrator.

Action: The UNIX installation scripts have an option that allows you to install the AR System as a non-root user even though you need root access during the installation procedure to copy some files to protected areas. See the *Action Request System Installation Guide* for information on the non-root installation process using the `ARNONROOTINSTALL` environment variable.

Not enough disk space

Issue: The installation process checks the amount of available disk space in the target partition. If there is not enough space, you are prompted to choose another partition where the software is to be installed.

Action: If you have another partition with enough space, enter a new AR System install directory and continue.

If you do not want to use another partition, you need to exit the installation procedure, free enough space for the AR System (the script tells you the amount of space the installation that you have requested will take) and restart the installation process. If you are installing the API in addition to the rest of the AR System, you may consider not loading the API at this time.

You can choose to override the warning and attempt to install the AR System anyway. This is possible if you are reinstalling the AR System since the newly installed executables overwrite the existing executables, thus reusing their space. You should be aware, however, that there is no guarantee that the installation process won't fail later due to disk space problems.

Database errors during SQL database installation

Issue: You are installing on an SQL database and you receive the message "`SQL Database error encountered`".

Action: This message indicates that an unexpected SQL database error was encountered while trying to install the AR System. The path name of the log file of all the messages reported by the database system is `/usr/tmp/arErrorLog`.

When reviewing this file, there may be errors reported at the beginning of the installation process indicating that tables are not present or that users do not exist. This is expected and is not a problem. The first step of the installation process is to remove any existing tables and users to avoid conflict later. If there aren't any existing tables or users, an error is generated but is ignored by the AR System installation process. Generally, the error message at the end of the file is the one of interest.

Review this file and find the last error message in the file. That error should help you to determine what is wrong so that you can solve the problem before restarting the installation process.

Error encountered installing sample schemas

Issue: You are installing a server and you receive the message "`Error encountered installing sample schemas`".

Action: This message indicates a problem installing the sample schemas that are shipped with the AR System and are installed when you install a new server. When you receive this message, the AR System itself is completely installed and is fully functional, but there was an error installing the sample schemas supplied with the AR System. If you do not need the sample schemas, you do not need to do anything. If you need the sample schemas installed, you can use the Administrator Tool to import them. All of the sample schemas that are installed are located in the directory `sample_db` under the AR System installation directory (by default this is `/usr/ar/sample_db`). For Windows NT, you can only import schema definitions, not data.

Installed UNIX client only and want UNIX server, too

Issue: You installed the AR System client software on a system and responded No to questions about installing the server. You now want to install the AR System server.

Action: Repeat the installation process, this time responding Yes to questions about installing the server.

Want to install the API

Issue: You installed the AR System but did not install the API. You now want to install the API.

Action: Repeat the installation process, making sure to respond No to all questions about installing the AR System server. The installation process will update all of the client executables and install the API.

Problems with the AR Server

What follows are descriptions of some of the more common situations you may encounter involving the AR System server.

Cannot access database files

Issue: When starting the AR System server, you receive a message stating that one or more files cannot be accessed. The server will not start if an important configuration file is missing.

Action: First, check that you are running as the user who installed the AR System, usually `root`. The database files are owned by this user to protect them from unauthorized access. The AR System server must be run as this user to be able to access these files.

If you are running as the correct user, check the file `/etc/ar.conf` for UNIX or `\<ar_install_dir>\conf\ar.cfg` for Windows NT. It should contain an entry beginning with `Server-directory:` followed by the full path name to the AR System database directory (for example, `/<ar_install_dir>/db`). If this is not correct, change the path name and restart the server.

If you are the correct user and the path name is correct, check to see if the file that is mentioned in the error message exists (maybe it was accidentally deleted). If the file is missing, restore it from a file backup. Remember, no one should delete any files in this database directory. The AR System creates and deletes the files as appropriate based on operations within the AR System.

If the file exists, check the permissions on the file to make sure that it is readable and writable by the current user. Again, no one should modify or change any of the files in this database directory. The AR System updates and manages these files as appropriate based on operations within the AR System.

Cannot access the SQL database

Issue: At start-up, you get a message stating that the server cannot access the SQL database. If it cannot access the database, the server will not start.

Action: First, if you are using the UNIX AR System, check that you are running as the user who installed the AR System, usually `root`. You must always run the server as the user who installed the AR System files.

If you are running as the correct user, look in the file `/etc/ar.conf` for UNIX or `\<ar_install_dir>\conf\ar.cfg` for Windows NT. It should contain an entry beginning with `Dbhome-directory:` followed by the

full path name to the home directory of the SQL database (for example, /usr/sybase). If this is not correct, change the path name and restart the server.

If you are the correct user and the path name is correct, check the other settings in the UNIX /etc/ar.conf or Windows NT \<ar_install_dir>\conf\ar.cfg file to make sure that they are correct for your database. The labels and settings are specific to the database you are using. In general, you should set all of the environment variables that you need before starting any interactive tool that accesses the database. If these are not set correctly, correct them as needed. Table 1-2 lists these environment variables.

Table 1-2 Database Environment Variables

Database	**Environment Variables**	**File Label**
INFORMIX	INFORMIXDIR	Dbhome-directory:
	TBCONFIG/ ONCONFIG	Informix-TBConfig:
	<remote server>	Informix-DBServer-Name:
	SQLEXEX	Informix-Relay-Module:
INGRES	II_SYSTEM	Dbhome-directory:
	<remote vnode>	Ingres-Vnode-Name:
ORACLE	ORACLE_HOME	Dbhome-directory:
	ORACLE_SID	Oracle-SID:
	TWO_TASK	Oracle-Two-Task:
SYBASE	SYBASE	Dbhome-directory:
	DSQUERY	Sybase-Server-Name:
Windows NT: Microsoft SQL	DSQUERY	Sybase-Server-Name

Invalid format/contents in the database

Issue: If the contents or format of the database files and tables do not match the format expected by the AR System, an error is reported and either the entire server shuts down (if it is a file used by all schemas, such as the filter file or table) or the individual schema is inaccessible by the server (if it is a problem with a schema-specific file or table).

Action: You should first try all the steps noted in the section entitled *Cannot access database files* earlier in this chapter. It is likely that one of the steps there will correct this problem.

If the problem persists, it is likely that someone changed the files or tables. It is important that these files and tables are *not* changed except through the AR System API calls. You can read the contents of the SQL tables for report generation, but you must not modify them.

You may be able to correct the inconsistency with the assistance of Remedy Technical Support.

Note – If someone made changes to the files or database, recovery may be impossible.

Another copy of the UNIX server is running

Issue: Only one instance of the AR System server can be run on a machine. (If running in multi-process mode, only one server on each RPC socket.)

Action: Check to see if `arserverd` is already running. If so, you must shut it down before you can start it again. You should be able to use the already running copy.

Note – On SunOS only: If no server is running, it is likely that you are experiencing a known bug with the NFS lock manager on Sun workstations. At times, the NFS lock manager will keep a file lock active even when the process holding the lock is no longer running. If no `arserverd` is running, you can free the lock by deleting *<ar_install_dir>*`/db/ar.lck`. You should be able to start the `arserverd` process once this file has been removed.

Malloc failure

Issue: If the server runs out of memory, it reports a memory allocation (malloc) failure. The server will probably continue running successfully for small operations.

Note that this discussion is for error 300, a malloc error on the server. See *Malloc failure* in the section entitled *Problems with the User and Administrator Tools* later in this chapter for an explanation of a malloc failure on a client.

Action: If the operation being performed is a large one (such as issuing a query that returns 50,000 entries), you might try refining your query criteria so that it returns a smaller number of entries.

The System Administrator for the system can free memory on the server machine by shutting down unneeded processes. This may free enough memory space for the operations you want to perform.

If you get a malloc failure when starting the AR System server, you must shut down some other processes since there is not enough memory to initialize the environment for the AR System server.

No server license

Issue: If you do not have a valid license for the software, the server starts up but issues a warning that you do not have a license. It starts successfully and allows you to access the product as if you had a license with two important restrictions:

- You can create a maximum of three (3) users who have a fixed license.
- You can create a maximum of about 50 entries (ARs) in each schema.

Action: You can only use the system for evaluation purposes before obtaining either a demo or full license from your authorized distributor. For information about user licenses, see the discussion in the section *Problems with Access Control* that follows.

Demo license expiration notice

Issue: Demo licenses have an expiration date associated with them. When you start the AR System server, a message is issued that notes this expiration date.

Action: This is an informational message. No action is required.

File system/database errors

Issue: During the processing of commands, there may be file system or database errors that are reported in response to these operations. Any problems are reported in messages.

Action: Take action based on the contents of the messages.

It is important that you do not ignore any errors reported by your database. Errors are issued only when unexpected conditions are detected. You need to address the issues that caused these errors to make sure that the problem is not affecting your data or your ability to continue entering and updating data.

File system full (flat file database)

Issue: The partition where the database is stored has been filled and there is no more space to store additional ARs.

Action: Remove other files in the partition where the database is stored to create some more space.

Delete ARs which you no longer need and do not need to access in the future.

Archive older ARs that you do not currently need, but may need in the future. You can use the User Tool to find ARs that you can archive (for example, you can query for all ARs closed over 6 months ago). Then, use the Report option and choose the AR Export format. This exports all of the ARs that matched the query criteria into a file. Using the `arimport` program and this file, you can restore these ARs at a later date, if needed.

Flat File database reporting a size limit

Issue: You are adding data to a flat file database and you receive a warning indicating that you are approaching the file size limit for the schema.

Or you are adding data to a flat file database and you receive an error indicating that you are at the file size limit for the schema.

Action: There is a maximum size of 10MB for a single schema data file when using a flat file database. At 9MB, we issue a warning when you submit an AR and warn you that the limit is approaching. At 10MB, we issue an error and notify you that no further submissions or updates are allowed.

Performance of the flat file database is unacceptable over these sizes. You must migrate to an SQL database solution to create schemas containing more data. The warnings at 9MB allow time to plan and execute the move to an SQL database.

SQL database full (SQL database)

Issue: The space allocated to the database system (either for the data or transaction log) has been filled.

Action: You can use the `ALTER` command in the database system to allocate additional space. For more information, see the documentation that came with your database.

Delete ARs which you no longer need and do not need to access in the future.

Archive older ARs that you do not currently need, but may need in the future. You can use the User Tool to find ARs that you can archive (for example, you can query for all ARs closed over 6 months ago). Then, use the Report option and choose the AR Export format. This exports all of the ARs that matched the query criteria into a file that is compatible with the `arcopy` program. Using the `arcopy` program and this file, you can restore these ARs at a later date, if needed.

UNIX system signal

Issue: If the server process is terminated by a signal, it issues a message indicating which signal killed the process. This is usually signal `SIGTERM` (15). If it is any other signal, it is generally either that a user sent a kill with that code to the process or the process encountered a software bug.

Action: If the signal is a `SIGTERM`, someone killed the process. They may have accidentally specified the wrong process ID when trying to kill another process. You can simply restart the AR System server and continue. No further action is needed.

If the signal is something else, note what was occurring when the signal was received. Note any error messages that were reported to syslog, to the program, or to the console and call Remedy Technical Support for assistance. You can restart the AR System server while we are pursuing the problem.

Problems with the User and Administrator Tools

What follows are descriptions of some of the more common situations you may encounter involving the AR System User and Administrator Tools.

Unable to connect to the X Server (UNIX only)

Issue: You receive a message indicating that you cannot connect to the X server.

Action: The Motif User and Administrator Tools are X windows applications and require that an X windowing system is running and available. This message indicates that there is not an X windowing system running. Start an X windowing system and reissue the command.

If displaying on a remote system, check the setting of the `DISPLAY` environment variable. You must either set the `DISPLAY` environment variable or run with the `-display` command line option to display remotely.

Issue: You receive a message like the following when you try to run the UNIX User or Administrator Tool:

```
Xlib: connection to "xxx:0.0" refused by server
Xlib: Client is not authorized to connect to server
Unable to connect to the X server
```

Action: You are running one of the tools on one machine and then trying to remotely display it on another machine. The machine you are displaying on (xxx) has not allowed other machines display access to it. You need to use the `xhost` program on the machine where you want to display the tools so the machine where you are running the tools is allowed to display to it.

Or, you are currently logged in as `root` on the same machine that is running the tools and you have not given the `root` user permission to display an X window. By default, most machines are configured to not allow the `root` user to run an X application. You must use the `xhost` program to give the `root` user permission to display an X window.

Note – `xhost` is an X program so you have to run it as a non-root user.

Command not found when starting a tool

Issue: If the User or Administrator Tool does not start and the system reports an error indicating that the command is not found or does not exist, the system cannot find the process you want to run.

Action: For UNIX: Check the spelling of the command you entered. If it is correct, then the program does not exist on your search path. Check your `PATH` environment variable. It needs to include the `bin` directory where you installed the AR System (by default this is `/usr/ar/bin` for UNIX and `\<ar_install_dir>\bin` for Windows NT). If your `PATH` environment variable doesn't include this directory, you could modify your `PATH` environment variable at system start-up, using your `.cshrc` or `.profile` script depending on the shell you are using.

To run the User or Administrator Tool when the `/usr/ar/bin` directory is not defined in your `PATH` environment variable, simply include the fully qualified path name of the User or Administrator Tool (for example, `/usr/ar/bin/aruser`).

For Windows NT: For the tool that received this error, check the command line and working directory definitions in the Program Item Properties. To do this,

in the Program Manager, click once on the icon in the Remedy AR System program group. Next, select Properties under the File menu and change any properties that are incorrectly defined.

The Program Item Properties are set correctly at the time that the client tools are installed. If the file names or directory structure have been changed since installation, Program Item Properties may be incorrect as a result. Either fix the properties manually, or re-install the client software.

Cannot find/access config file (UNIX only)

Issue: The AR System User and Administrator Tools use a local `config` file to store information about your environment. It is located in your AR System configuration directory. By default, that is a directory named `arHome` under your home directory (`/home/<username>/arHome`). You can change this by setting the `ARHOME` environment variable to point to another directory.

Action: Check to see that you have read and write access to the directory specified by your `ARHOME` environment variable. If not, change `ARHOME` to point to a directory where you have read and write access or change the permissions on the directory so you have read and write access.

If you have read and write access to the directory, check for an existing config file and check whether you have read and write access to that file. If you don't have access, you need to either change `ARHOME` to point to a directory where you have read and write access or you need to change permissions on the file so you have read and write access.

No AR file in home directory/AR file in wrong format (Windows NT only)

Issue: You received a message from one of the tools, stating that either the directory file `ar`, or the servers defined for the AR System, could not be found. Most tools exit at this point, except the Administrator tool, which prompts for another login.

Action: If you have an Administrator tool, start it up and use the Login Information window (under the Login window) to find user names that have no server information associated with them. Use the Servers window to set up

at least one server for the user name listed in the Login Information window.

Alternately, you can use an editor to create a file called `ar` in your home directory. At least one record in this file should read:

```
server_name AR;NT
```

No floating license tokens available

Issue: When you try and access the User Tool, you receive an error indicating that there are no floating license tokens available for use.

Action: Obtain more floating licenses so more are available.

Select License Info from the File menu of the Administrator Tool to see which users are currently using floating licenses. You can look at the list of Current Users with Floating licenses. If one of these users can be bumped from the system, you can remove their license and then log in, obtaining the floating license you just freed. This process denies that user access to the system, so this should not be done casually.

You start the User Tool and you are asked to select a schema (UNIX only)

This message at start-up means one of the following:

Issue: This is the first time you have started the User Tool using the current configuration directory and you have not yet selected a schema.

Action: Simply select Open Schema from the File menu and select the schema you wish to open.

Issue: The last time you were running the User Tool, you were accessing a schema on a server that you do not have access to now.

Action: Since the server you are trying to access was not available, you can either exit the User Tool and try later or connect to a schema on a different server by choosing Open Schema from the File menu.

You start the User Tool and the window is blank (UNIX) or you open a Submit or Query window on a schema and do not see any fields (Windows NT)

Issue: You are successfully connected to a schema (its name appears in the title bar), but you have restricted access to the schema (you cannot see any fields). It may be that you are not allowed to see *any* of the fields. Or, maybe you are not allowed to see any of the fields that are on this page of the schema.

Action: Try scrolling the schema up or down to see if there are more pages which contain fields you are allowed to access.

If you have Customize permission, open a Custom User View window and see if there are hidden fields that should be made visible.

If there are no hidden fields and you do not have access to fields on other pages, talk to your AR administrator.

You request a printed report but nothing is printing

Issue: You are trying to print from the User Tool but no output is produced.

Action: Check that the report produces output by using Report to Screen. This allows you to check that the report is working.

For UNIX: Check to see if the system has a problem trying to access the printer you specified. To check, try to print a small file by issuing the `lp` or `lpr` command (as appropriate for your operating system) along with the file name from the shell prompt. If that does not print, there is a problem printing to that printer from your system. See your System Administrator for help printing to that printer. When that problem is corrected, you should be able to print from the User Tool.

If you can print from the command line, check to be sure that you specified the correct printer when you chose your print options. If not, choose the correct printer and repeat the operation. If you chose the correct printer, check to make sure that you specified no print filter or that the filter specified is valid. If you specified a print filter, try the operation without the filter to see if the filter is causing the problem. Again, see your System Administrator for help with your printer filters.

For Windows NT: Check in the Control Panel in the Program Manager to see if the printer is installed correctly. See your System Administrator for help.

Missing value for required field on User Tool Submit window

Issue: You must supply a value for all required fields (unless they have a default value). If you omit a value for a required field you will receive an error. However, there may be a case when you receive this error but no such field exists on your screen.

Action: First, check to see if the field is on another page of the schema. If you find the field on another page, and you are allowed to customize your view, you might consider moving the required field into a more convenient location or assigning it a default value so that it does not cause you trouble in the future.

If the field does not exist anywhere, check to see if you have previously customized your view and accidentally hidden the field. If you have hidden a required field, you must make it visible again or specify a default value for it. If you specify a default value you can leave the field hidden.

If the field does not exist and you have not hidden it, it means that there is a required field for this schema that does not have a default and you are not allowed to access the field. Therefore, you can't submit new ARs using this schema. You need to talk to your AR administrator about either getting access to the field or having an administrator default value set for the field.

Cannot connect to a server

Issue: You may get an error that says you cannot connect to a server or you may not be seeing information from a server you think you have access to. All of the tools check their access to a server when they first start up. If the server is accessible when the tools first start up, it can be reached whenever the tools are running provided that the server is still accessible. However, if the server is down when the tools first start up, it is unavailable while the tools are running.

Action: Shut the tool down and restart it to try to connect to the server again. If the server is still inaccessible, perform the following steps:

1. **Issue a `ping` command to the server machine to see if it is accessible. If the `ping` command fails, there may be a connectivity problem in your network. When this connectivity problem is solved and you can successfully issue a `ping` command to the server, your tools should have access to the server again.**
2. **If issuing a `ping` command to the server is successful and you still cannot connect to the server, check to see that the server process (`arserverd`) is running on the server machine. If not, start it, or ask your AR administrator or System Administrator to start it.**

1. **For UNIX:** If the server is running, check the `/etc/ar` file on your machine to be sure that the server is listed as one of the servers you can access. If not, add an entry to this file for the desired server or use the -x option on the tool command line.

   For Windows NT: If the server is running, check the Login Information window to see if the server is listed as one of the servers that your login name can access. If not, use the Servers window to add it.
2. **For UNIX:** Check that the AR System server is active and running using the `rpcinfo` command as follows:

   ```
   rpcinfo -t <hostname> 390600 3
   ```

   If the program is available, it will indicate "`Program 390600 version 3 ready and waiting`".

   For Windows NT: Check in the Services window (located under the Control Panel in the Program Manager) to see if the Remedy Action Request System server status is "Started".
3. If all of these are correct, try shutting down and restarting the User or Administrator Tool. The server may have been temporarily inaccessible.

RPC timeout (ARERR 92, 93, and/or 94)

Issue: A timeout indicates that the requested operation has taken longer than the RPC timeout period. There are some database operations that may take longer to complete than the RPC timeout period (such as importing a large set of schemas or restructuring a schema with a lot of data).

You received one or more of the following: ARERR 92, ARERR 93, and ARERR 94. Refer to Chapter 2 for details about these error messages.

Action: The message is not necessarily an indication of a problem. If it is a long operation, it will eventually complete. Check back later (a minute or two) to see if the operation completed successfully.

If the next operation fails or simple operations (like retrieving a single AR) continue to generate this error, check the server process to make sure it is still running and has not entered an infinite loop of some kind (check the cpu utilization on the server machine to see if it is steady at 100%). If the server is active and it does not seem to be in an infinite loop, wait for a few minutes to let the backlog of operations clear from the server and then continue with your work once it has caught up with new requests again.

If a large operation is causing timeouts, you should consider issuing these operations during off-hours to lessen the impact on others. Good candidates for these types of operations are restructuring schemas by deleting fields or changing field lengths.

You can enable SQL, filter, or API logging (see *Debug Modes*) to monitor the operations you are performing.

Cannot connect to AR server (ARERR 90)

Issue: While trying to start a tool, you received the error message ARERR 90, Cannot Connect to AR Server (refer to Chapter 2, for details about this message).

Action: This error may be caused by the server going down for some reason. Ask your AR administrator to check to see if the server you were accessing is still up. If the server is down, your AR administrator should check to see why it went down (for UNIX, follow the same steps that are listed for the problem described in the section entitled *UNIX system signal* earlier in this chapter). Your AR administrator or System Administrator can restart the AR System server to restore your access.

The AR server may also have been busy with another operation while attempting connection.

Malloc failure

Issue: If the client runs out of memory, it reports a malloc failure. The client will probably continue running successfully for small operations.

Note that this discussion is for errors 154, 1000, 1500, 2001, and 2200, a malloc error on the client. See *Malloc failure* in the section entitled *Problems with the AR Server* earlier in this chapter for information about a malloc failure on a server.

Action: You can free memory on the client machine by shutting down any unneeded processes. This may free up enough memory space for the operations you want to perform.

If you get a malloc failure when starting-up the User or Administrator Tool, you must shut down some other processes since there is not enough memory to initialize the environment for the AR client process.

Cannot find/store macros, custom reports, or user commands

Issue: The AR System tools store the scripts for macros, custom reports, and user commands in a directory named `arcmds` under your AR System configuration directory (by default this is `/home/<username>/arHome/arcmds` on UNIX and `\HOME` in Windows.

Action: For UNIX: You must have read and write access to the configuration directory *and* to the `arcmds` directory, if it already exists.

If you are trying to find an existing macro, custom report, or user command, you must have read access to the file that contains the macro, custom report, or user command.

For UNIX and Windows NT: Finally, if you are creating or updating a macro, custom report, or user command, you may not have enough disk space to store the updated definition. You need to free up some space in the full partition in order to save the updated definition.

Issue: If you use your `ARPATH` environment variable (UNIX) or Desktop Preference AR Path (Windows) to specify alternate directories containing macros, custom reports, and user commands, the same rules apply as those for the default directory for these definitions (see the previous Cause / Action).

Action: Check to see if your definition of the ARPATH environment variable or AR Path Preference includes the directories you need to access and check to see that you have the appropriate permissions to these directories.

Batch process running the User Tool via a macro failed due to missing user name (UNIX only)

Issue: While trying to run `aruser` via a macro (executed by a batch process such as a "chron job"), the error message "A user name must be supplied in the control record (ARERR 149)" is returned. A valid user name must be provided, even within a macro, for actions to process against the AR System.

Action: Record the macro with a valid login as the first action.

Action: Run the user tool using the same ARHOME directory, then log in (with the Prompt for Password property set to "Save Password"). Then, run the macro again.

Problems with the Notification System

The list that follows describes some of the more common situations that you may encounter when running the Notification Tool. You can use the Get Details command in the Notification Tool to get additional details about a reported error.

Cannot connect to a server

Issue: You may receive an error that says you cannot connect to a server or you may not be seeing information from a server you think you have access to. All of the tools check their access to a server when they first start up. If the server is accessible when the tools first start up, it can be reached whenever it is accessible while the tools are running. However, if the server is down when the tools first start up, it is unavailable while the tools are running.

Action: From a UNIX or Windows client: Shut the tool down and restart it to try connecting to the server again. If the server is still inaccessible, perform the following steps (step 1 pertains to **UNIX only**):

1. Check to see that the `ntclientd` process is running after starting the Notification Tool. If it is running, it means the notification client has successfully started. If it is not running, make sure that there is a process called `ntclientd` in the same directory as the `notifier` and restart the tool.
2. If the UNIX client is running, check the `/etc/ar` file on your machine to make sure that the server is listed as one of the servers you can access. If the Windows client is running, check the list of servers in the Login Information window to see which servers your user name can access. For either client tool, you may need to add an entry associating your user name with the server.
3. Next, issue a `ping` command to the server machine to see if it is accessible. If the `ping` command fails, there may be a connectivity problem in your network. When this connectivity problem is solved and you can successfully issue a `ping` command to the server, you should have access to the server again.
4. If the Notification Tool has successfully started, issuing a `ping` command to the server is successful, and you still cannot connect to the server, you next need to check the server. For UNIX, there should be a process named `ntserverd` running on the server. For Windows NT, the service Remedy Notification Server should be listed with a status of “Started.” If that process is not running, you need to start it or ask your AR administrator to start it. You should consider having this process automatically started at system boot time.
5. Additionally, for a Windows NT server, you can examine the About box under the Help menu to see which servers the tool is currently connected to.

Registration of user failed

Issue: When the Notification Tool server is running under heavy usage, NTERR 601 (Registration of user failed) occurs. A common cause of this is a bad password.

Action: Re-attempt login.

Action: The description for NTERR 601 says that an associated error message, with details, is displayed. Either click the Get Details button or double-click on the notification message (if one exists) — one or both of these should be possible. A popup window with additional error information should appear.

Action: If the failure occurs only when the Notification Tool server is under heavy load, this may an RPC timeout issue. In this situation, the system is busy processing other requests and the user login fails because the server cannot verify the user within the allowed timeout interval. A re-login should clear this up.

Not receiving notifications

Issue: You are not receiving notifications and you expect to be receiving some.

Action: First, check to see that you are logged in as the correct user (shown in the title bar of the Notification Tool). Also check for any error messages returned. For example, if you log in with a bad password, your name will be in the title, but an error will be reported indicating the bad password.

If you are the correct user, verify the conditions that should issue you a notification. Verify that all of the conditions occurred. Check to see that you specified to be notified through the Notification Tool as opposed to through email or not at all.

Action: If you are expecting to be notified based on the actions of filters or escalations in the AR System, you can use the filter tracing capability of the AR System server (`arserverd` filter debug mode) to insure that the filters are performing their operation correctly and generating an appropriate notification.

Alternately, you can create another filter or escalation that sends a message to the submitter (back to yourself). This is a way to verify that the filter or escalation in question is executing.

Action: Verify that users are registering in `/usr/spool/remedy/ntusers`. The `ntusers` file holds the current list of registered Notification Tool users. If `ntserverd` is terminated, or if the system is rebooted, `ntserverd` checks the `ntusers` file to establish who was previously connected (and need to be re-connected) when the Notifier Tool was last running.

Action: Verify that the client is supposed to connect to a server. Make sure the correct server name and “NT” are specified in the `/etc/ar` file for UNIX, or the Login Information window for Windows NT. The entry should look like this:

```
<server_name> AR;NT
```

Action: ntclientd processes are running. For example:

```
%ps -auxww | grep nt

root 111 0.0 0.0 212 0 ? IW 09:03 0:00 /usr2/ar/bin/ntserverd
root 125 0.0 0.0 080 0 ? IW Jan 6 0:01 /usr2/ar/bin/ntclientd
```

Action: Verify that portmapper/rpcbind has registered arserverd, ntserverd andntclientd using the UNIX rpcinfo -p command. For example:

```
%rpcinfo -p | grep 390
390602 1 tcp 727 ntclientd
390602 2 tcp 727 ntclientd
390699 1 tcp 724 arservpc
390601 1 tcp 728 ntserverd
390600 2 tcp 728 ntserverd
390600 1 tcp 919 arserverd
390600 2 tcp 919 arserverd
```

Action: Start the UNIX Notifier Tool client and server tools, ntclientd and ntserverd, in debug mode. For example, using ntserverd:

```
%ps -auxgww | grep ntserverd

root 111 0.0 0.0 212 0 ? IW 09:03 0:00 /usr2/ar/bin/ntserverd
```

To write debug information to the current window:

```
%<ars_install_dir>/bin/ntserverd -d
```

To write debug information to the current window and to the log file:

```
%<AR_instll_dir>/bin/ntserverd -d >& /usr/tmp/ntserverd.log &
```

To start the Windows Notifier Tool client tool in debug mode, open the file \HOME\ar.ini, and make sure the following entry exists:

```
[Debug]
DebugFlag=4
DebugFilePath=c:\home\debug.log
```

The values you can assign to the debug option flag (DebugFlag) are:

- 0 — no debugging
- 1 — messages to AUX
- 2 — messages to a dialog box on-screen
- 4 — messages to a log file specified by the value you assigned to the DebugFilePath flag.

Action: If all else seems correct, you might test connectivity from the server to the client. There may be a problem where the server cannot access the client machine:

1. On the UNIX client machine, issue the `hostname` command. This provides the name that is being used by the server to access the client machine.
2. On the server machine (the machine running `ntserverd`) use the `ping` command to try to contact the machine with the name obtained from the `hostname` command in Step 1. If the `ping` command is successful, you have connectivity from server to client. If it isn't successful, the server cannot contact the client to deliver messages.
3. If the server cannot access the client, you can add aliases to the `/etc/hosts` file on the server to provide the references to the client machines. With these references in place, the server should be able to contact the client and deliver messages.

RPC call failed

Issue: This error is generally caused by the client or server going down for some reason.

Action: Check to see if the NT client or server you were accessing is still up. If the error is from the server, it should automatically restart (recovering your registration) the next time a notification is generated. If the error is from the

NT client, you need to re-login to the Notification Tool. The message should indicate whether the client or server generated the error. If it was generated by a server, the message should also indicate which server generated the error.

Cannot find/access config file (UNIX only)

Issue: The NT system tools use a local `config` file to store information about your environment. It is located in your NT System configuration directory. By default, that is a directory named `arHome` under your home directory (by default this is `/home/<username>/arHome`). You can change this by setting the `NTHOME` environment variable to point to another directory.

Action: Check to see that you have read and write access to the directory specified by your `NTHOME` environment variable. If not, change `NTHOME` to point to a directory you do have read and write access to or change the permissions on the directory so that you have read and write access.

If you have read and write access to the directory, check for an existing config file and check whether you have read and write access to that file. If you don't have access, you need to either change `NTHOME` to point to a directory where you have read and write access or you need to change permissions on the file so you have read and write access.

Problems with the Full Text Search Option

Incorrect Retrieval of Records

Issue: Seaches using the Accrue operator do not return the correct results, or you receive database errors stating that searches are not allowed on fields on that you could qualify on previously.

Action: To determine whether you are searching full text indexed fields, check the context-sensitive help for the fields in question. The Full Text Option setting will read either "None" or "Full Text Indexed." You can also obtain a list of full text indexed fields in a schema by selecting the "On Window" menu item under the Help menu.

Issue: Queries that use the Accrue operator seems to be returning incorrect data.

Action: Check to see if words from the Ignore Words list are used in your Accrue search. If they are, they are ignored (no entries will be matched on the basis of that word, even though it is in the search criteria you specified).

The administrator should examine the ignore words list by opening the Admin tool, selecting the Server Information menu item under the File menu, and selecting the Full Text Search panel/tab. If the search includes words that are in the ignore words list but should not be, the Administrator must change the ignore words list and press re-index for the change to take effect on the entries that have already been indexed.

Note – Administrators should seriously consider the effect re-indexing may have on system performance, depending on the size and complexity of the full text index.

Action: The administrator should check in the Full Text Search panel/tab, located under the Server Information window in the Admin tool, for the setting of the FTS Search Option. The consequences of each setting are discussed in the *Action Request System Administrator's Guide* (both the OSF/Motif and Windows NT versions). Each setting can change the number of matches returned by a given FTS query; the administrator should decide which is appropriate for the server.

Issue: You expect the FTS searches to be case insensitive, but the query results seem to be case sensitive (or vice versa).

Action: The administrator should examine the case sensitivity option from the Admin Tool by selecting the Server Info menu item under the File menu, and selecting the Full Text Search panel. The case sensitivity options are case sensitive and case insensitive. Change to the desired option and retry the query.

Issue: You are using wildcards in a query, or doing query-by-example in fields where the QBE match operator is "Anywhere" or "Leading." However, the query results appear as if there were no wildcards in the query, or that the QBE match operator was "Equals."

Action: The administrator should examine the search options by opening an Admin Tool, selecting Server Info from the File menu, and selecting the Full Text Search panel. The administrator should decide whether the selected

options are actually the best ones for the given site. For more information about search options, refer to the Full Text Search chapter of the *Action Request System Administrator's Guide*.

Issue: Recently submitted ARs do not show up in query.

Action: There can be a delay between the time an AR is submitted or modified and when the data in all the FTS fields gets added to the full text index. Examine the pending list file `arftp.lst` under the AR System database directory to see if there are records that are pending indexing. You may also need to check that the full text search daemon is running.

If you submitted a ticket and are searching for that ticket, redo the query after the full text daemon has processed the record in question.

It is also possible that the disk partition holding the full text index has run out of space and consequently the full text cannot index certain records from the pending list file. Examine the `arerror.log` file in the AR System database directory to see if there are any messages related to insufficient disk space.

Insufficient Disk Space Available for Full Text Index

Issue: The disk partition containing the full text index is full.

Action: Examine the `arerror.log` file in the AR System database directory to see if there are any messages related to insufficient disk space.

If you cannot reclaim enough disk space on the file system where the full text index is currently located, you must find a file system that has more disk space. You can use the Admin Tool to relocate the full text index to another partition. To do this, select Server Info from the File menu, then select the Full Text Search panel. Disable full text operations, type in the new full text directory path, and apply the changes. Do not put the full text index on an NFS-mounted partition.

Experiencing Performance Problems with Full Text Search

Issue: A full text search is taking too long and/or returning insufficient data.

Action: If your query involves more than one indexed field, it may not be constructed in the most efficient manner.

If the logic of the query permits it, group the subclauses of your query together. For example, assume your original query looked like this (and that only the Long-Description and Short-Description fields are FTS-indexed):

```
('Assigned Priority' = 3 AND 'Long-Description' LIKE "%network%")
AND ('Short-Description' LIKE "%daemon%")
```

Try reconstructing the query so that the actions against full text indexed fields are grouped together. The above example could be rewritten as:

```
'Assigned Priority' = 3 AND ('Long-Description' LIKE "%network%"
AND 'Short-Description' LIKE "%daemon%")
```

Issue: You imported a large amount of data into a schema that has full text indexed fields, resulting in a full text index that is somewhat disorganized, and therefore makes queries slow.

Action: The administrator should consider reconstructing the full text index. In the Admin Tool, select the Server Info menu item from the File menu. Select the Full Text Search panel, and click the Reindex button to reconstruct the full text index.

If you are going to import data into a schema that has full text indexed fields, we recommend you do the following:

1. Turn the FTS Indexing property to No on all fields in the schema.
2. Import the data.
3. Turn the FTS Indexing property to Yes for the necessary fields in the schema.

Problems with the Electronic Mail Interface (armaild)

Note – This section applies only to the `armaild` program for Windows NT.

Trouble connecting to armaild / interfacing with Microsoft Mail

Issue: Cannot log into Microsoft Mail account via the mail client tool, using the `armaild` login and password.

Action: First, ensure the Microsoft Mail account exists, and that the password is correct. If the account exists, but you cannot log in via the mail tool, the problem is with Microsoft Mail and you should follow that package's troubleshooting instructions.

Issue: `armaild` not processing messsages from Microsoft Mail

Action: When `armaild` is *not* running, log on to Microsoft Mail using the `armaild` account and password. Check the Post Office feature to see if there are any messages that have not been "read". If there are no messages, `armaild` is processing the messages properly. If there is a queue of messages, `armaild` is having a problem accessing the post office.

You should also ensure that you do not have the Microsoft Mail client tool and `armaild` running at the same time on the same server or system. Sometimes, Microsoft Mail does not allow two applications on the same system to access mail simultaneously.

Issue: The Mail Service reports a login failure when started in the services console.

Action: Verify that the NT account being used has the correct password, and that you have entered that passsword in the services startup panel. Also, ensure that the account you are using has the user right to "log on as a service."

Issue: Receiving "Ambiguous Address" or "Unknown Address" errors.

Action: `armaild` cannot send to addresses that are not defined or do not have aliases in the Microsoft Mail Post Office. The Microsoft Mail administrator must define the unknown addresses and resolve any amibguity for addresses that have more than one possible destination.

Keep in mind that Microsoft Mail parses addresses from left to right; thus it does not compare entire addresses as separate parameters. For example, if you have addresses defined as "doug" and "dougw," and you send a message to "doug", it will be considered an ambiguous address. The system believes "doug" is a subset of "dougw." Conversely, sending mail to "dougw" will succeed, because that address is considered unique.

1

Problems with Access Control

The access control strategy for the AR System uses an access control cache of user and group information from one or more schemas on one or more servers in an environment. The full process is discussed in the following paragraphs. It is important to understand the process used for access control in order to troubleshoot any problems you may be having.

The first step in the access control process involves updating the User and/or Group schema (the name is not important, the presence of the reserved fields like Login name [ID = 101] and group name [ID = 105] in the schema are important). These two schemas are available on the server when installed. See the *Action Request System Administrator's Guide* for more information on the User and Group schemas.

If you want to keep all user and group information in a single location, you can remove the User and Group schemas from all servers except for one main server.

When a user or group is added, deleted, or modified, the information is stored as an entry (AR) just like for any other schema. By default, each of the servers are independent in terms of user and group lists. Updates to these schemas are immediately reflected in the local access control cache and any license violations are reported interactively on each server.

To support centralized access control in a multi-server environment,you need to use one of the access control support programs, `arcache`. (This program is generally run using a filter action.) The `arcache` process takes the information from the entry and sends requests to all of the registered servers and updates the local access control cache. This is when users and groups are recognized by the system for access control purposes. This is also when license checks are made to see that any additions of users do not exceed the number of users with write access that you are licensed to have. Notes about new licenses or rejection updates due to license violations are written to the error log on the target machine.

There may be several User and Group schemas on several servers. The information in each is different on each server. However, the information can be merged in the access control cache. If a user is defined in two places, they are treated as the same user as long as the password is the same in both places. If it is different, the two entries are treated as two separate users.

There is a second support program (`arreload`) that is used to reload the access control cache on one or more servers from the information contained in a schema. When this program is used, the cache on the target server(s) is cleared of all information from the source schema and is reloaded from the current schema contents. In a multi-server environment where a single server is managing a global user and group list, this program should be run periodically (that is, on a weekly or monthly basis) to make sure the access control cache is in sync with the user and group schemas. Even with the filters running, there are circumstances where the access control cache could get out of sync. A good example is when the access control cache support processes try to update a server that is currently inaccessible. The change that was to be propagated is lost so the change is not recorded until the next reload operation.

Note – The `arcache` and `arreload` programs are documented in the *Action Request System Programmer's Guide.*

New users and/or groups are not available after they are added (local user/group)

Issue: As users and groups are added the processing starts that adds them to the access control cache. If users and groups do not seem to be available, it is often due to incorrect capitalization.

Action: Retrieve the entry (AR) from the User or Group schema and verify that the information is what you expect. Verify that the names are spelled correctly (remember that spaces and capitalization are important) and verify that you are using a password, if needed. If any information is incorrect, correct it and apply the changes. The user or group may now be available.

If the user is still not available, use the `arreload` command to force synchronization of the access control cache with the User schema.

New users and/or groups are not available after they are added (central user/group)

Issue: As users and groups are added to the schema on the central or main server, the processing starts that adds them to the access control cache on all local servers. If users or groups do not seem to be available, there may have been a problem in the transfer to the remote servers.

Action: Retrieve the entry (AR) from the User or Group schema on the server that holds the centralized user or group schema and verify that the information is what you expect. Verify that the names are spelled correctly (remember that spaces and capitalization are important) and verify that you are using a password, if needed. If any information is incorrect, correct it and apply the changes. The user or group may now be available.

If everything is okay locally, check the error log on the target server to see if any licensing errors have been reported. The most common error is that you added a new user or upgraded an existing user to have a fixed license but you do not have any more fixed licenses available. If you are hitting your license limits, you must either purchase more licenses or rearrange which users are using your fixed licenses and which are using your floating licenses.

If licenses are available but the user or group is still not available, check the filters on the server holding the User or Group schema. Check to see if there are filters that are working on the schema that are passing information from the schema to the `arcache` process. Check to see if this process is updating all servers or only one specific server (not the server you are using.) If these filters are not present or are incorrect, you can either add them or, if your site is using `arreload` for periodic updates instead of filters for interactive updates, run the `arreload` process to pass the changes to the target server(s).

An error indicates you are out of licenses but you cannot find that many fixed license users

Issue: While adding a new user with a fixed license, an error occurs indicating that there are no more fixed licenses available. However, there are not enough users given a fixed license to account for the number the system thinks are in place.

Action: Select License Info from the File menu in the Administrator Tool to get a list of all registered users. Check the Fixed license list to get a list of who the system thinks is assigned a fixed license.

If you find users who should not have a fixed license, check their user records. Update them as appropriate if they are wrong.

If the entry in the User schema seems correct but the entry is still present, use

the `arreload` command with the `-f` (for flush) option to reset the cache to the contents of the User schema. This should remove any users that don't actually have a fixed license.

Note – During initial installation, three users with fixed licenses are created. These users are: Demo (who is the initial Administrator user), and Francie Frontline and Bob Backline (who are Administrator users created for use with the demonstration environment initially installed with the system).

You may want to remove the users Francie Frontline and Bob Backline when you are done using the startup demonstration, and the user Demo once you have created other Administrator users in your system. Be careful to insure you create at least one other Administrator user *before* deleting all three of these users.

You have deleted all Administrator users accidently

Action: Use the `arcache` process to add a new Administrator user (you may have to delete another user with a fixed license if you are at your license limit in order to add a new Administrator user). Remember, the group list for an Administrator user is "1;". This is not a security hole since the `arcache` process can only be run by a root user and you can only add the number of users equal to the number of licenses that you have.

Once this user is added using the `arcache` process, you can log into the system as that user and perform whatever updates are needed (like adding that user back using the User schema). You should run the `arreload` program against the User and Group schemas after they have been patched to bring the schemas and caches back into sync.

An error indicates that there are no floating licenses available

Issue: While connecting to the system or while performing an operation to a server you have not accessed in a while, you receive an error stating that there are no floating licenses available. If you receive this error, you are registered as using a floating license. This error indicates that there are no floating licenses available.

Action: Obtain more floating licenses so more are available.

Select License Info from the File menu of the Administrator Tool to see which users are currently using floating licenses. You can look at the list of Current Users with Floating licenses. If one of these users can be bumped from the system, you can remove their license and then log in, obtaining the floating license you just freed. This process reduces user access to the system, so this should not be done casually.

There are conflicts in the cache file from several servers

Issue: If conflicting entries are made to the caches, they are rejected if the conflict is a serious one or accepted and ignored if minor.

Action: You should be careful about having users registered in two locations with different sets of permissions. This is because whichever set of permissions is found in the cache first, that is the set that is enforced. You should either have exclusive sets of users if they are split into two schemas or merge the two schemas into one and simply have both sites reference the same schema.

New groups that are added do not show on the Group list menu in User schema

Issue: If you have defined a character menu for the group list field, the User Tool does not modify the character menu to keep up with the list of groups that are defined.

Action: The AR administrator for the server must perform that task. If there is no character menu, the User Tool dynamically builds the group list menu from the current group list. If you want to have the list reflect the current list, simply delete the character menu on the Group List field.

If you assign a menu, a good menu to use for this field is one that is built from a query of all group names from the Group schema in sorted order. This provides a dynamic menu of the current groups defined for the AR System. Using this type of menu, access control to the Group schema controls whether there is anything displayed on the group list.

Error Messages 2

This chapter contains the error messages returned by these components of the AR System:

- The AR System Server
- Network management daemons
- Electronic mail interface (`armaild`)
- User Tool
- Administrator Tool
- Distributed Server Option (Motif only)
- Import Tool
- Notification Tool

2

Server Messages

1 **Message not in catalog — message number = <message#>**
An error or warning occurred in the system and the text corresponding to that error or warning could not be found. (The tag ARERR indicates that the condition is an error, while ARWARN indicates a warning.) There are several possible causes of this problem.

Most likely, the message catalog is not accessible to you. Refer to the discussion of message catalogs in *Troubleshooting* for details on how to correct this problem.

If the message catalog is accessible (you are getting most error messages but not this specific one), an event occurred for which there may not be a corresponding error message in your catalog. Check this chapter for the message. If it is not present in this document, contact your Remedy Technical Support representative and provide them with the message number and the circumstances under which the message appeared.

Messages from the AR System Server

20 **AR System server terminated when a signal was received by the server**
The server for the AR System (`arserverd`) was terminated by a signal. There is a number following this error which is the signal that was received.

If the signal is 15, you should be able to restart the server and continue to work. The process was either killed accidently or on purpose by a user in your environment.

If the signal is something other than 15, or is one you sent directly to the process, contact Remedy Technical Support for assistance in determining the cause of the problem. The server most likely shut down due to a bug in the system.

21 **AR System server terminated — fatal error encountered**
A fatal error occurred within the `arserverd` process. The details of that error will be in an associated message. This message is simply a catch-all to indicate that the error was fatal so the `arserverd` process is shutting down.

22 **Failure during open/write to the filter/escalation log file**
A file system error occurred while the AR System was running a filter or escalation that logs information to a file (using the Log to File action). An associated message detailing the reason for the failure is presented with this message. Processing continues, but logging to the log file is suspended until the problem is corrected (see Error 23).

23 **Open/write to the filter/escalation log file resumed successfully**
A failure was reported on an open or write to the log file identified by Error 22. Additional actions occurred to access this file, and the file is now accessible and can be written to. Any operations between the message indicating a write failure (Error 22) and this message are not included in the log file.

24 **Failure while trying to run the filter/escalation process**
An error occurred while the AR System was executing a filter or escalation that runs a process. There is an associated message detailing the reason the process could not be executed. Check the definition to verify that the process definition is correct. If not, correct the process definition in the filter or escalation.

25 **Fields in 'set fields' action incompatible with schema for filter/escalation**
The filter or escalation being executed is attempting to set values in fields that do not exist in the target schema. Correct the definition. Only specify values for fields that exist in the target schema.

A common cause for this error is a filter or escalation that tries to assign a value to a field that used to exist on the schema but has been deleted since the definition was created.

27 **The AR Server does not have a license on this system. This system can be used for evaluation but is not allowed for production use. Contact your distributor for license information.**
There is no active license for the system on which you are attempting to run the AR System server. The full functionality of this product is available to you to allow evaluation and investigation of the features of the product. The only limitation is that any one schema may contain a maximum of 35 to 50 entries (ARs). If you try to add more entries when the limit is reached, the system generates an error message.

You must obtain a license to run the AR System server in anything other than evaluation mode.

28 **The AR Server does not have a license. Previous demo license expired. This system can be used for evaluation but is not allowed for production use. Contact your distributor for license information.**

The demo license for the system on which you are attempting to run the AR System server has expired. The system is now running in an unlicensed mode (see previous message).

You must obtain a license to run the AR System server in anything other than evaluation mode.

29 **The AR Server license is a license that expires <expiration date>**

Informational message. This message indicates that you are currently operating with a demo license and that the license will expire on the given date. Contact your distributor for information about upgrading your license.

30 **You are already at the limit of the number of fixed <license type> user licenses allowed: <# licenses>**

You attempted to create a new user in the system with a fixed license. However, you are already at the limit of the number of users equal to your number of fixed licenses. You can add the user with a read/none or floating license.

The `<license type>` is replaced by "write" or "full text" to indicate the type of fixed license.

If you run out of fixed licenses, you might want to verify that the sample users were deleted.

Contact your distributor for information about obtaining additional licenses.

31 **A fixed <license type> license was issued for the new user: <x of y>**

Informational message. You have just created a new user who is assigned a fixed license. This message is reporting the successful creation of a user and provides an indication of the current number of users having a fixed license and the total number of users that are allowed.

The `<license type>` is replaced by "write" or "full text" to indicate the type of fixed license.

34 **Error while opening the AR System server lock file**

The AR System server (`arserverd`) opens a lock file named `ar.lck` at start-up (or `ar.lck.`*<rpcnum>* for server or alternate sockets). These files are used to prevent multiple copies of the `arserverd` process from being started on a single socket simultaneously. There will be an associated file system error message that details what the problem was with the file. Correct the problem indicated by that message and run the server again.

35 **Another copy of the server is already running on the same RPC socket**
Only one instance of the AR server can be run on a specific RPC socket on a machine at one time. Check to see if there is already a server running in this socket. If so, no action is required.

If the server is not running, you have probably run into a known problem with the NFS lock manager on Sun workstations. At times, the lock manager keeps a lock running even when the process holding the lock is no longer running. If no `arserverd` is running, free the lock by deleting the lock file. Start the `arserverd` process once this file has been removed.

36 **The database is not the expected version (may need to run upgrade program)**
The AR System server (`arserverd`) expects a different version of the AR System database that is being referenced. The AR System server cannot run against an unknown version of the AR System database. Contact Remedy Technical Support for help in running the upgrade program to upgrade the version of the database to match the version expected.

37 **Error while accessing one of the debug trace files**
The system debugging mode has been activated and the system is having trouble accessing one of the debugging trace flags. There is an associated message that details the failure. Check that message to correct the problem. The system continues to run, but debug tracing to the file is disabled.

38 **Filter/escalation 'set field' process returned an error**
A filter or escalation was performing a Set Fields action using the option to run a process and return a value, but the process returned an error message. The text of the message returned is displayed with this error. The error terminates the operation being performed and the current transaction is rejected. No update to the database occurs.

39 **Filter/Escalation 'set field' process timed out before completion (value not changed)**
A filter or escalation was performing a set fields action using the option to run a process and return a value, but the process did not complete within the timeout interval specified for filter processes. The filter continued and the operation was performed in the database. The value for the associated field was not changed.

The Administrator has control over the timeout setting for the process. It can be configured, within the Administrator Tool, to be from one to 20 seconds with a default of five seconds.

40 **Bad or missing value for -r command line argument — ignoring command line and continuing**

The value for the `-r` command line argument (RPC socket specification) was either missing or was not a legal value. A value must be supplied with this parameter. If you want to use the default RPC socket, omit this parameter. If supplied, this value must be 390600 (the default socket), 390603 (the escalation daemon), 390619 (the dashboard daemon), 390620 through 390634 (“fast” daemon), 390635 through 390669 (“list” daemon), or 390680 through 390694 (“private” daemon).

The RPC socket parameter is ignored and processing continues.

41 **Unrecognized command line argument — ignoring command line and continuing**

The command line argument displayed on the following line is not a legal command line argument for the AR System server. The command line argument is ignored and processing continues.

42 **Server not licensed to run with multiple-RPC sockets — ignoring setting and continuing**

The command line contained the parameter `-r` which specifies alternate RPC sockets for the process. This server is not licensed to run with multiple RPC sockets.

The RPC socket setting is being ignored and processing continues.

43 **A character field with a $MENU$ pattern is failing due to errors retrieving the character menu to validate against**

A `$MENU$` pattern is specified for a field with a character menu and the server is encountering an error while building the menu to check the value against. The error can be one of three things:

- The menu is built from a query against a schema that is on a different server. The server restricts access locally to the same server process for performance and consistency reasons. You cannot use a `$MENU$` pattern check for a remote query.
- The menu is built from a query against a local schema, but the query is encountering an error during retrieval.
- The menu is built from a file and the file cannot be found.

44 **You are already at the limit of the number of schemas allowed for your server license**
The AR System server you are running against has a limited license. You are only allowed to create a specified number of schemas and you are at that limit. You must remove one or more of the existing schemas before you can create a new schema.

45 **System is not configured to run with a server on the specified RPC socket**
You attempted to run a new `arserverd` process using the `-r` command line option or with the environment variable `ARRPC` set. The RPC socket number specified is a legal socket number; however, the system has not been configured to allow a process on the specified socket. You specified a socket in the legal range for one of these sets of servers (RPC sockets 390620 through 390634 for “fast” servers, and sockets 390635 through 390669 for “list” servers), but beyond the maximum number of servers currently configured.

46 **Message action is not supported in escalations**
You created an escalation and specified one or more “message” type actions. Escalations do not have a message type action. You must change the definition to eliminate the message type actions.

47 **Email notification operation timed out before completion**
The system blocked while attempting to send a notification via email. In order to prevent the `arserverd` process from hanging while waiting for the mail system, the process waits for 20 seconds. If `arserverd` receives no response, the process disconnects from the mail system and issues this error.
It is likely that the mail will be delivered when the system comes back up.

48 **Internal error: The maximum response value in the control record is too small (minimum of 4096 bytes)**
This error is reporting an internal RPC failure. A client is accessing the server and has specified insufficient space for the response to be returned. Immediately contact Remedy Technical Support for assistance if you receive this error.

49 **Internal error: The request ID for a multi-piece RPC response is invalid**
This error is reporting an internal RPC failure. A client is accessing the server and has specified an invalid identifier for the information that is desired. Immediately contact Remedy Technical Support for assistance if you receive this error.

Warnings

50 **Only the Administrator has access to this field**
The indicated field is accessible only to Administrator users. No permission settings have been specified to allow other users access. This is expected if you are restricting access to the field. However, if you want other users to be able to access and manipulate this field, you need to assign some permissions to the field.

51 **Field ID specified does not exist in this schema**
A retrieval operation was attempted for the field identified by the indicated ID, but there is no field with that ID in the target schema. The data for the correctly identified fields was retrieved.

52 **The field is a core system field and cannot be changed**
You attempted to modify the contents of a core system field (Entry ID, Create-date, Last-modified-by, Last-modified-date, or Status-history). These fields are owned and managed by the AR System and cannot be changed.

53 **Administrator access required to get permission information**
You requested permission information about a field. Only a user with Administrator access can retrieve permission information. No permission information is returned, but any other requested information is retrieved.

54 **No changes have been specified for the update operation**
You specified a Modify operation to the system, but there were no modifications specified. If the command is being executed programmatically and there is potential for set operations with no changes to be specified, this error should be trapped and ignored within your program.

55 **The following item was not imported: <item>**
You attempted to import one or more items (schemas, filters, active links, administrator extensions, or character menus) to the current server. The listed item was not successfully imported. There is an associated message indicating why the item was not imported. Correct the error and try importing the item again.

56 **Entry does not exist on schema**
You attempted to retrieve an entry that does not exist. If this message is received when retrieving an item that was reported in a preceding GetList retrieval, the item may have been deleted by another user.

57 **One or more fields in the statistic operation had a NULL value. Those values are excluded from the statistics computation.**
Informational message. The requested statistic operation(s) found one or more NULL values in the fields that were being used for the calculation. Since NULL fields do not contain any meaningful data for the calculation being performed, only those fields that contain non-NULL values are included in the computation.

59 **User does not exist — successfully connected as a guest user (remember to consider capitalization)**
You attempted to login with a user name that the AR System did not recognize. The AR System allowed login, but only as a guest user.

If you think the login name exists, check spelling and capitalization, and try again. Be careful to enter the login name correctly (including upper and lower case).

If the login name does not exist, check with the administrator to see about getting the user added as a valid login to the system.

60 **You do not have read access to field**
You attempted to access a field to which you do not have read access. If access to this field is required, check with the administrator to see about having your permissions extended to include this field.

61 **You do not have read access (for this entry) to field**
You attempted to access a field to which you do not have read access for the current AR. If access to this field on this AR is required, check with the administrator.

This message is issued (as opposed to Message 60) when you may have access to this field on some entries when you are the Submitter or Assignee of the specific case. You do not have access in this instance, but you may on another entry.

62 **You do not have access to the requested entry**
You attempted to access an AR to which you do not have any access. If access to this AR is required, check with the administrator.

This error results when you do not have access to the Entry-ID field (the unique key given to each entry (AR) in the system).

63 **One or more values in the statistic operation cannot be retrieved due to access control restrictions. Those values are excluded from the statistics computation.**
You attempted to perform a statistical operation that included values from fields that you are not allowed to access. The AR System completed the statistical operation, but the unaccessible values were not included in the results. If it is necessary that those values be included in the computation, check with the administrator to see about having your permissions extended to include the fields.

64 **The filter/escalation action cannot write to the specified log file — actin created but file should be verified**
You created a filter or escalation action that logs to a file. The action was created, but the file you specified does not exist and cannot be created. An associated message provides details about why the file cannot be created. The action does not perform any operation until the file system error is corrected. As soon as the log file is created, the action logs transactions.

65 **The filter definition contains multiple schema links. This is an older definition, and the filter is linked only to the first schema in the list.**
The filter definition uses an older syntax in which filters could be linked to multiple schemas. The new definition allows only a single schema link. The filter is loaded, but only with access to the first schema in the schema list. See an Administrator about restructuring the filter definition to refer to a single schema. If you need filters with the same actions, you need to create multiple filters.

66 **The query matched more than the maximum number of entries specified for retrieval — returned entries limited to the specified maximum**
The retrieval being performed included a query that selected more that the maximum number of items specified by the client. The call returned the number of entries specified as the maximum. If using the API, the total number that would have been returned if there was no parameter for that value was specified.

67 **Open of menu file failed — character menu is incomplete**
A character menu that references a file was being expanded, and the specified file could not be accessed. There is an associated message with details about why the file could not be accessed. The character menu being expanded is incomplete with no menu where the file was supposed to be expanded. Correct the problem and expand the menu again.

68 **RPC environment variable is out of valid range (390600, 390603, 390619 - 390669, 390680 - 390695). NOTE: The value 390603 and the range 390619 - 390669 are specialty servers and may have restricted functionality.**

The value of the ARRPC environment variable is not a legal value. If you want to use the default RPC socket, you can clear this variable. If you want to use the ARRPC environment variable, this value must be 390600 (the admin daemon), 390603 (the escalation daemon), 390619 (the dashboard daemon), 390620 through 390634 (“fast” daemon), 390635 through 390669 (“list” daemon), or 390680 through 390694 (“private” daemon).

The environment variable is being ignored and processing is continuing.

69 **Creation of one of the SQL views for the schema failed within the SQL database. Operation completed successfully, but the SQL view is not in place.**

While attempting to create the SQL view for this schema, the system encountered the associated SQL error. This error prevented the creation of the SQL view. The table definition and all the structure needed by the AR System server is complete and in place. Only the SQL view for this schema is not in place.

The definition of the schema and associated fields are complete and in place. You can access the schema and continue with operation of the system. The only missing information is an SQL view for this schema which is needed only if you are directly accessing the SQL database using the SQL view.

70 **One or more fields in this schema reference character menus that no longer exist**

The character menu referenced by one or more fields in this schema does not exist. There is no character menu for the field, even though the system has a menu defined for it.

71 **Only the Administrator has access to this active link**

The indicated active link is accessible only to Administrator users. No permission settings have been specified to allow other users access. This is okay if you are restricting access to the active link. However, if you want other users to be able to perform this active link, Administrators need to assign some permissions to the active link.

72 **The query matched more than the maximum number of entries specified by the server — returned entries limited to the specified maximum**

The retrieval being performed included a query that selected more than the maximum number of items specified by the server. This number is less than the maximum specified by the client for this call. The call returned the number of entries specified as the maximum by the server.

73 **A value change is pending on the Submitter Mode setting — change will take effect the next time the server is started**

A change to the Submitter mode setting will not take effect until the AR System is shut down and restarted. It is a pending change until the next restart.

74 **A duplicate index has been specified — duplicate was omitted and indexes were created**

You specified the same index twice for a schema. You cannot create duplicate indexes. This message is a warning about the duplicate, but processing has been completed with the index created only once.

Remember that the AR System automatically creates a unique index on the Entry-Id field. Although this index does not show in the list of indexes, it is present on every schema. You will receive this error if you attempt to create an index that contains only the Entry-Id field.

75 **No free floating write license tokens are available. Currently accessing the system in read-only mode. License will upgrade when one is available.**

You are assigned a floating write license, but there are no floating write tokens available at this time. You are allowed access to the database for Read-Only use. The system will try to upgrade your license type when a token is available.

76 **A write token has become available and has been allocated to you — access has been upgraded to write access**

You have previously received Error 75. A floating write token has become available and it has been allocated to you. You now have full read and write access within your permissions.

77 **There are no free floating full text license tokens available. Currently accessing the system without full text search capability. License will upgrade when one is available.**

You are assigned a floating Full Text license, but there are no floating Full Text tokens available at this time. You are allowed access to the database but without access to the Full Text Search engine. The system will try to upgrade your license type when a token is available.

The system will use the default database search capability on all fields, including the fields that are Full Text indexed.

78 **A full text token has become available and has been allocated to you — access has been upgraded to allow full text searching**

You have previously received Error 77 (indicating you could not get a Full Text token, but were allowed to access the system using the default database search strategy). A floating Full Text token has become available and it has been allocated to you. You now have full FTS access within your permissions.

79 **This query menu contains a large number of values — only the first <retrieved #> of <total #> values are being retrieved.**

While expanding the query style character menu, the system found a large number of matching values to put on the menu. The message shows the number of values that were retrieved and the number that were put into the menu. (The limit for the number allowed in a menu is approximately 1,600 items.) The system will show the partial menu.

It is likely that this menu is incorrect or needs to be limited in some way. A menu with more than 1,600 items is difficult to manage and is expensive to retrieve and build.

80 **Delete column failed — column contents set to NULL and column renamed**

You attempted to delete a field from a schema. The delete operation failed and details are in an associated message. The system performed the next closest operation by logically deleting the column, renaming it in the database to avoid naming conflicts, and setting all the data values to NULL.

81 **The field is a distributed server reserved field that can be updated only by the distributed server process**

Some of the Distributed Server Option reserved fields cannot be changed except by `arservdsd`. An attempt was made to change one of these reserved fields.

82 **One or more indexes were updated to remove reference to the field -— length was changed so that it is not allowed in an index**

A change was made to the limits definition of a field. The new limits cause the length of the field to be changed from less than 256 bytes to 256 bytes or greater (or unlimited). This field is involved in one or more indexes for the current schema. A field with a length of greater than 255 bytes cannot be involved in an index. To prevent an error, the reference to the field that cannot be in an index has been removed from the index definition for the schema, and the remaining indexes rebuilt.

83 **The query list fields definition of the schema has been updated to remove references to the field — the length was changed so that it is not allowed in the query list**

A change to the limits definition of a field has been made. The new limits cause the length of the field to be changed from less than 256 bytes to 256 bytes or greater (or unlimited). This field is involved in the list of fields defined to be returned in the query list. A field with a length of greater than 255 bytes cannot be involved in the query list. To prevent an error, the reference to the field that cannot be in the query list has been removed from the query list definition.

86 **No support for indexing in the flat file database — index definition is stored but not implemented**

You specified indexing but the AR System is using a flat file database. Flat file databases do not support indexing. To take advantage of indexing, you need to use a version of the AR System that interfaces with a relational database.

The definition of the indexes will be recorded with the schema definition.

87 **The flat file server is approaching the maximum file size limit (no submissions are allowed after the limit is reached)**

The submit operation was successful. However, the underlying database is a flat file database and it is near its maximum capacity for a flat file database for a single schema. This warning will be repeated after each submission while the system is close to the limit. When the limit is reached, submissions are rejected.

Either move to an SQL database or delete some of the entries (ARs) in the flat file database to allow room for new entries.

88 **No support for direct SQL commands in the flat file database**

An active link, filter, or escalation attempted a Set Fields operation that issues an SQL command. Your underlying database is a flat file database, which does not support direct SQL commands. Either the workflow must be changed to use another method for getting data, or the system must be moved to one of the supported relational databases.

RPC Errors

90 **Cannot establish a network connection to the AR System server**

The server is inaccessible due to one of the following reasons:

- There is a connectivity problem with the network. Issue a `ping` command to the server. If there is a problem with the network connection, you need to solve the problem in order to use the AR server. Once the network connection problem is corrected, you can successfully connect to the server.

- If there is no network connectivity problem, check to make sure that the server process (`arserverd`) is running. If not, ask the AR administrator to start it.
- If the server is running, check the `/etc/ar` file (for UNIX) or Login Information window (Windows) on your machine to verify that the server is registered as one of the servers you can access. If no entry is present in the aforementioned file / window, add the entry.

If the connection is still unsuccessful after you have eliminated the above causes, try shutting down and restarting the User Tool. The server may have been temporarily inaccessible.

Refer to Chapter 1, "*Troubleshooting*" for more information about connectivity problems.

91 **RPC call failed**

This error is generally caused by the server going down for some reason. If the server process is down (`arserverd` is not running), check the `syslog` file on the server system to see if you can find out why it went down. To restore access to the server, restart `arserverd`.

92 **Timeout during database update — the operation has been accepted by the server and will usually complete successfully**

A timeout occurred while data / structures in the database were being updated. In most cases the operation will still be performed after the timeout; however, you may need to re-attempt the operation.

93 **Timeout during data retrieval due to busy server — retry the operation**

A timeout occurred while information was being retrieved from the data dictionary, because the server was busy performing other operations. Retry the operation when there is less activity on the server.

94 **Timeout during database query — consider using more specific search criteria**

A timeout occurred while data was being retrieved from the server. This error is often caused by poorly-specified search criteria. Check, and if necessary modify, your search criteria and retry the operation.

99 **Two servers have been encountered with the same Remedy server ID — neither will be accessible until one is shut down and tools restarted**
Two servers in your environment have been encountered that have the same Remedy server ID. Both servers are disabled until the license conflict is resolved. Contact Remedy Technical Support for assistance.

Errors

100 **Entry ID parameter is empty**
The operation being performed requires the Entry ID to be specified, but the parameter was not supplied. Try the operation again, this time specifying the Entry ID for the entry.

101 **Entry ID parameter value is longer than the maximum allowed length**
The Entry ID specified for the Entry ID parameter was longer than the maximum length allowed (AR_MAX_ENTRYID_SIZE, 15 characters). Verify the Entry ID of the entry and try the operation again. Remember that character strings must be terminated by a '\0' character.

102 **Name parameter (or name field in a parameter) is empty**
The operation being performed requires a name specification for an item but no name was specified. Specify a value for the name parameter and try the operation again.

103 **Name parameter (or name field in a parameter) is longer than the maximum allowed length**
The name specified was longer than the maximum length allowed (AR_MAX_NAME_SIZE, 30 characters). Verify the name of the item and try the operation again. Remember that character strings must be terminated by a '\0' character.

104 **Field/value list item is empty**
The field / value list parameter for this call is NULL or contains zero items. This operation requires at least one specified field / value item.

105 **NULL pointer for result list**
The parameter that is supposed to hold the data that is the result of this operation is a NULL pointer. In order to return the requested data, this parameter *cannot* be NULL.

106	**Entry ID list is empty** The list of entries selected to perform the statistic operation on is NULL or empty. You must specify a list of one or more entries to perform the statistical operation.
107	**Statistics list is empty** The list of operations to be performed in this statistical operation is NULL or empty. You must specify a list of one or more operations to be performed.
108	**Field display definition is incorrect** One (or more) of the fields in the display structure for the field is invalid. You most likely specified an illegal display type, label positioning, or option. Check the include file `ar.h` for legal values for these fields.
109	**File name is longer than maximum allowed file name** The file name parameter you specified is longer than the maximum file name allowed by the system (AR_MAX_FULL_FILENAME, 255 characters). Check that the filename you specified is a legal name. Remember that character strings must be terminated by a '\0' character.
110	**Unrecognized data type** The value you specified for the data type parameter is not one of the legal values recognized by the system. Check the defines in the include file `ar.h` for the legal values for this field.
111	**Unrecognized data type for default value** The value you specified for the data type field of the ARValueStruct parameter defining the default value is not one of the legal values recognized by the system. Check the defines in the include file `ar.h` for the legal values for this field.
112	**Character menu definition is empty** The structure you specified for defining the character menu for a field is either NULL or empty. If you are defining a character menu, you must supply a menu definition in this parameter.
113	**Name list parameter is empty** In a field operation, the list containing the selection values for a selection type field is NULL or empty. A selection field must contain one or more legal values.

114 **Error with an entry in the name list**
During processing of a list of names (such as selection value names), one or more of the values was invalid. An associated message describes the problem. This error relates the associated error to the name list instead of to another parameter in the call.

115 **Operation mask parameter is out of bounds**
The filter operation set parameter is invalid. This parameter is a mask of one or more operations on which the filter will potentially fire. Either this parameter has an empty mask or has values outside the allowed limits on the mask. Check the defines in the include file `ar.h` for the legal values for this field.

116 **Filter does not have an action defined**
The action field for a filter is either NULL or empty. A filter must define at least one action.

117 **Command string is empty or longer than the maximum allowed length**
The command string that issues an external command to the operating system is either empty or is too long. If empty, you must supply a command. If too long, you must reduce the command to the maximum length allowed (AR_MAX_COMMAND_SIZE, 255 characters).

Note that if the command being created is within a filter or active link, the command string may contain parameters. When they are expanded, the command line may expand to 4,096 bytes. The unexpanded line is limited by the value defined by AR_MAX_COMMAND_SIZE.

118 **Unrecognized value for field option**
The value you specified for the field option parameter is not one of the legal values recognized by the system. Check the defines in the include file `ar.h` for the legal values for this field.

119 **Unrecognized create mode**
The value you specified for the create mode parameter is not one of the legal values recognized by the system. Check the defines in the include file `ar.h` for the legal values for this field.

121 **Error with an entry in the Entry ID list**
During processing of a list of Entry IDs, one or more of the values was invalid. There is an associated message that describes what the problem was. This error ties the associated error to the ID list instead of to another parameter in the call.

122 **ARServerInfoRequestList structure is empty**
The value you specified for the list of information to retrieve from the server was NULL or empty. If you are going to retrieve some information, you must specify what information you are trying to retrieve.

123 **Unrecognized server information tag**
You specified a code for a piece of server information that was not recognized. Check the defines in the include file `ar.h` for a list of all the valid codes that can be specified.

124 **Error with an entry in the field/value list**
One of the items specified in the field/value list contains an error. There is an associated error message with details about the specific error.

125 **Error with an entry in the statistics list**
One of the entries specified in the statistics operation list is invalid. There is an associated error message with details about the specific error.

126 **Unrecognized statistics operation**
One of the statistical operation codes is not recognized. Check the defines in the include file `ar.h` for a list of all the valid operation codes.

127 **Error with an entry in the permission list**
One of the items in the permission list is invalid. There is an associated error message with details about the specific error.

128 **Unrecognized permission tag**
One of the permission tags is not recognized. Check the defines in the include file `ar.h` for a list of all the valid permission tags.

129 **Field limit definition is invalid**
The field limit specified for this field is invalid. Consider the following:

- For a numeric field, check that the high range is greater than the low range.
- For a character field, check to see that the pattern is within the size limit of the field. Also, check to see if the specified character menu is legal, if the menu style setting is legal, and if the match operation setting is legal.
- For a selection field, check to see if the value is a legal value for the field.

130 **Error with an entry in the character menu**
One of the entries in the character menu is invalid. Either a child menu tag was assigned but there is no child menu, or a leaf item was specified and there is no leaf string.

131 **Unrecognized character menu item type**
One of the character menu type tags is not recognized. Check the defines in the include file `ar.h` for a list of all the valid character menu type tags.

132 **Structure item is empty**
The structure list parameter is NULL or is an empty list. In order to perform a structure operation, we need a list of the options to get or set.

133 **Unrecognized structure item tag**
One of the structure option tags is invalid. Check the defines in the include file `ar.h` for a list of all the valid structure tags.

134 **Error with an entry in the structure item list**
One of the items specified in the structure list is invalid. There is an associated error message with details about the specific error.

135 **Unrecognized filter action type**
One of the filter action codes is not recognized. Check the defines in the include file `ar.h` for a list of all the filter action type tags.

136 **Unrecognized notify mechanism**
The code specified for the notify mechanism in one of the filter actions is invalid. Check the defines in the include file `ar.h` for a list of all the allowed notify mechanisms.

137 **Unrecognized message type**
The code for the type of error message to return is invalid. Check the include file `ar.h` for a list of all the valid message types.

138 **Filter/active link/escalation message number must be greater than 10000**
The message number of a message you define through the Message action of a filter, active link, or escalation must be greater than 10000. Numbers less than 10000 are reserved for the AR System. By restricting your errors to values greater than 10000, we are avoiding conflicts between errors you have added to the system and ones that are from the AR System itself.

139 **Option cannot change for core or reserved field that has a fixed options definition**
The core fields of the system have restrictions on what changes are allowed. You are attempting a change to a characteristic of a core or reserved field that cannot be changed in the way you are requesting. Review the *Action Request System Administrator's Guide* for information about the restrictions for each of the core fields.

140 **A default must be active for the Status field**
The Status field must have a default value. You are attempting to change the definition of the Status field, which will eliminate the default value and is not allowed. You can alter the number of states and change the default value, but cannot eliminate it.

141 **Can only use the Qualify None option at the top level of a qualification**
You have specified the tag AR_COND_OP_NONE as the tag for an ARQualifierStruct structure when this structure was not at the top level of a qualification. This tag is used to indicate no qualification so there is no reason for it to be used in the middle of a qualification tree. Restructure the call to remove the tag from the middle of the tree.

142 **Unrecognized operation in qualify conditions**
The tag for one of the nodes in the qualify condition structure is invalid. Check the include file `ar.h` for a list of all the valid tags.

143 **Relational operation is empty**
The value portion of a relational operator qualification structure is NULL. You must specify a value for a relational operation.

144 **Unrecognized relational operation**
The tag for the relational operation to perform is invalid. Check the include file `ar.h` for a list of all the valid tags.

145 **Arithmetic operation is empty**
The value portion of an arithmetic operator qualification structure is NULL. You must specify information for an arithmetic operation.

146 **Unrecognized arithmetic operation**
The tag specified for the arithmetic operation is invalid. Check the include file `ar.h` for a list of all the valid tags.

147 **ARFieldValueOrArithOp structure is empty**
The value portion of a field/value/arithmetic structure is NULL. You must specify information for this structure.

148 **Unrecognized ARFieldValueOrArithOp structure tag**
The tag for the type of the field/value/arithmetic value is invalid. Check the include file `ar.h` for a list of all the valid tags.

149 **A user name must be supplied in the control record**
The name field of the ARControlStruct parameter is empty. You must supply the name of an AR System user in this field.

150 **A server name must be supplied in the control record**
The server field of the ARControlStruct parameter is empty. You must supply the name of the server to reference in this field.

151 **Required schema parameter is missing**
The schema parameter is required, but the value passed is either NULL or an empty string. You must load this parameter with the name of the schema you want to reference.

152 **Error with an entry in the sort list**
The value specified for the sort list parameter is invalid. There is an associated error message that provides details about the specific error encountered.

153 **Unrecognized sort method**
The code for the specified sort method is invalid on one of the entries in the sort list. Check the include file `ar.h` for a list of the valid codes.

154 **Malloc in client library failed**
The system encountered an error during a call to allocate memory space. The failure occurred on the client machine during processing of the call to or from the server. Generally, this error occurs when there are too many processes running or some processes have grown to occupy most or all of the available memory space on your client machine. You can recover that memory space by shutting down unneeded processes. In addition, restarting processes that have been running for a while will help by recovering any space those applications have leaked over time.

155 **Return buffer is NULL**
The buffer that holds the return value of the call was passed a NULL value. In order for the call to return the data requested, there must be a parameter specified to hold a pointer to the result. You must supply a non-NULL value for this parameter.

156 **Input buffer is NULL**
The buffer to hold the input value to the call was passed a NULL value. In order for this call to perform the requested operation, there must be a value specified for this parameter. You must supply a pointer to the input buffer for this parameter.

157 **Field IDs below 100 are reserved for Core fields**
You have specified a field ID of less than 100 for a new field. IDs of less than 100 are reserved for the AR System. You cannot specify IDs in this range for fields you create. Perform the call again, specifying a field ID that is not within the core range.

158 **Entry ID field must contain at least 5 non-defaulted spaces**
You have requested a modification to the length of the Entry ID field. This field is a character string containing from 5 to 15 characters. You are allowed to specify a default value of from 0 to 10 characters that will act as a prefix to the generated IDs.

The combination of the prefix and the total length allowed for the field must allow at least 5 characters free for the integer portion of the ID. If you receive this error, the combination of the length you have specified for the field and the default value prefix leave less than this minimum 5 spaces.

162 **Notify text is empty or too long**
The notify text you can specify for a notification is limited to 255 characters before expansion. The text you specified is over that limit. You must correct your text string to 255 characters or less. Remember that character strings must be terminated by a '0' character.

Note that the text string may contain parameter references that are expanded before the message is delivered. The expanded message can contain up to 4096 characters.

163 **Unrecognized notify field ID tag**
The tag for the notify fields structure is invalid. Check the include file `ar.h` for a list of all the valid tags.

165 **Items specified but are NULL pointers**
A parameter has been specified that contains a numItems value that indicates one or more items for the parameter, but the value field in the structure is a NULL pointer. If there are items, the value field must point to the items. If there are no items, the numItems field must be initialized to 0.

166 **Default type and data type of field mismatch**
The data type specified as the default value for the field does not match the data type defined for the field. The data type of the default value must be compatible with the data type of the field.

- A default value of the same type as the field is always compatible.

- A default value of AR_DATA_TYPE_NULL is always compatible with any data type.
- A keyword value is compatible with the data type that matches the type of the resulting keyword (e.g. $DATE$ is compatible with AR_DATA_TYPE_TIME but not with AR_DATA_TYPE_CHAR).
- All other combinations are illegal.

167 **Limit type and data type of field mismatch**
The data type specified in the limit for the field does not match the data type defined for the field. The data type in the limit structure must be compatible with the data type of the field.

- A default value of the same type as the field is always compatible.
- A default value of AR_FIELD_LIMIT_NONE is always compatible with any data type. It indicates that there is no limit for the field.
- All other combinations are illegal.

168 **Error with one of the field/assignments in the set filter/active link/escalation definition**
An error was encountered with one of the field/value assignments in the Set Fields action of a filter, active link, or escalation definition. There is an associated message that provides details about the specific failure. Usually, the problem is an attempt to define an assignment between incompatible data types or to non-existent fields.

169 **Execution order value is out of range**
The execution order field of the filter, active link, or escalation definition contains a value that is out of range. The legal range for the execution order is 0 to 1000 with items at lower values being performed before items at higher ones.

170 **Unrecognized status history tag**
The tag that specifies whether you want the user name or timestamp for a status history value is not a recognized value. The only supported values for the tag field are AR_STAT_HISTORY_USER and AR_STAT_HISTORY_TIME.

171 **Status history selection value is out of range for status definition**
The status field value you specified does not match any defined status for this schema. The selection value specified is a 0-based, positional index into the list of states defined for Status.

173 **Language specified in the control record not recognized — using default on server**

The language you specified to be used for the system is not recognized by the server.

If you are coding directly to the API, the language field is in the control record that is passed to each call. To use the default language, leave the language buffer empty (set to an empty string). You can also set the language to the default language of “C” to use the standard language defaults. You can set this value to any language your environment supports.

If you are running one of the AR System tools, the language to use is picked up from the LANG environment variable. So, check the setting of that variable and correct it if it is wrong (or delete it if the default language is sufficient).

174 **Display type specified is inappropriate for the data type**

The display type value specified for this field is not compatible for the data type of the field. You must choose a display type that is appropriate, as shown in Table 2-1.

Table 2-1 Data Types and Display Types

Data Type	Display Type
AR_DATA_TYPE_INTEGER	AR_DISPLAY_TYPE_TEXT AR_DISPLAY_TYPE_NUMTEXT
AR_DATA_TYPE_REAL	AR_DISPLAY_TYPE_TEXT
AR_DATA_TYPE_CHAR	AR_DISPLAY_TYPE_TEXT
AR_DATA_TYPE_DIARY	AR_DISPLAY_TYPE_TEXT
AR_DATA_TYPE_ENUM	AR_DISPLAY_TYPE_TEXT AR_DISPLAY_TYPE_CHECKBOX AR_DISPLAY_TYPE_CHOICE
AR_DATA_TYPE_TIME	AR_DISPLAY_TYPE_TEXT

175 **The length or numRows value of the display parameter is out of range**
The length or numRows (number of rows) value for the display parameter is not within the allowed range.

For fields displayed as TYPE_TEXT, neither the length nor number of rows field should be zero (0). The length specifies the width of the control and the number of rows specifies the number of rows of data that are displayed for the field.

For fields displayed as TYPE_NUMTEX, the length field should not be zero (0). The length specifies the width of the control and the number of rows value is ignored.

For fields displayed as TYPE_CHECKBOX or TYPE_CHOICE, the number of rows field should not be zero (0). The number of rows specifies how many rows the checkboxes/choices should be displayed in and the length value is ignored.

176 **Duplicate selection value in the selection or bitmask value list**
In the list of selection or bitmask values, the same name is used for two different states. You must rename one of the duplicate selection values so that each selection or bitmask value has a unique label.

177 **Cannot specify change access for a view-only group**
You have specified that a group should be given change access to a field; however, the group is a View group and cannot be granted change permission. You can only assign view permission to the field for this group.

178 **Field ID parameter is NULL; must be a pointer to memory**
The field ID parameter is a NULL pointer. It must be a pointer to a field ID. If you want to assign the ID for a field, load this parameter with the value. If you want the system to assign an ID, assign this field to 0 and the system will assign a value and return the result in this field.

179 **Pattern in a character limit is invalid**
The pattern specified for a limit to the character field is not legal. Most often, the pattern either has an opening [with no matching closing] or has a range within a [ ] construct with the starting value a greater value than the ending value (for example, [c-a]).

180 **Default value for a character type is longer than the maximum allowed length AR_MAX_DEFAULT_SIZE**
The value specified as the default value for a character field is longer than the maximum allowed by AR_MAX_DEFAULT_SIZE (256 bytes). Verify the default value and try the operation again. Remember that character strings must be terminated by a '\0' character.

181 **The ID specified for this field is in the reserved field range**
The ID for the specified field falls within the reserved range of field IDs. In the API call, you did not set the flag indicating that you are allowing creation of fields in this range. You must set that flag to allow the creation of a field with this ID.

Alternatively, if you do not care what the ID is, you can set the flag to 0 to have the system generate a unique ID for you. The system will return the ID assigned.

182 **Too many actions have been specified for this filter/active link/escalation**
The filter / active link / filter has more actions defined than the maximum allowed by the system (which is 25). You need to reduce the number of actions by either combining several action steps into one or by creating a second filter / active link / filter and separate some of the actions into each filter / active link / filter.

183 **Duplicate group ID was specified in permission list**
You specified a group ID more than once in the permission list you are sending to the system. Any given ID can be specified only once with the permissions allowed for that group field. The problem is solved by removing the duplicate reference.

184 **Cannot specify a quote in default value for Entry ID field**
The default value for the Entry ID field (used as the prefix for the IDs generated for each entry or AR) cannot contain a single quote character. You must specify a default value that does not contain a quote character.

185 **Cannot assign default value to system supported core or reserved fields (except Entry ID)**
You have assigned a default value to a system-controlled AR System core field (Entry ID, Create-date, Last-modified-by, Modified-date, or Status-history field). The only system-controlled core field that can have a default value assigned to it is the Entry ID field where the default is used as a prefix to the ID. The other AR System system-controlled core fields are automatically updated by the system so no default value is needed or allowed.

186 **Cannot assign character menu to system supported core or reserved fields**
You have assigned a character menu to a system-controlled AR System core field (Entry ID, Create-date, Last-modified-by, Modified-date, or Status-history field). The system-controlled core fields cannot be assigned values by the user so a character menu is not needed or allowed.

187 **Execute mask parameter is out of bounds**
The execute mask is a bitmask of the conditions under which an active link will execute. The value you have specified includes bit settings outside the legal range of conditions under which you can execute an active link. The bitmask can be created by adding together the set of defines that represent the conditions under which you want the active link to execute.

188 **Execute mask setting requires a field to which to attach**
The active link you have defined has the “on return” or “on menu choice” condition set in the execute mask, but there is no setting to indicate which field to attach the operation. You must specify the field where you want to attach the active link action.

189 **Active link does not have an action defined**
The action field for an active link is either NULL or empty. An active link must define at least one action to be performed.

190 **Unrecognized active link action type**
One of the active link action codes is not recognized. Check the defines in the include file `ar.h` for a list of all the active link action type tags.

191 **Unrecognized assign type**
The assign type tag is not recognized. Check the defines in the include file `ar.h` for a list of all the assign type tags.

192 **Field/assignment list item is empty**
The field/assignment list for an active link set fields action is either NULL or empty. A set fields action must define at least one field to be assigned a value.

193 **Error with an entry in the field/assignment list**
One or more field/assignment items in the field/assignment list encountered an error. Refer to the related message(s) for details on the error.

194 **Unrecognized tag for filter/active link/escalation ‘set field’ action**
The ARAssignFieldStruct structure tag is not recognized. Check the defines in the include file `ar.h` for a list of all the ARAssignFieldStruct tags.

195 **Filter/Active Link/Escalation ‘set field’ definition is missing**
The field definition in the field/assignment structure is set to NULL. You must supply a field definition value in this structure.

196 **Macro branch of active link action must include both a name and macro text**
The definition of a macro action must include both a name and the text of the macro to execute. One or the other is either NULL or an empty string.

197 **Unrecognized keyword**
A keyword type value was specified, but the keyword identifier was not recognized. Check the defines in the include file `ar.h` for a list of IDs for all supported keywords.

198 **Cannot use the $DEFAULT$ keyword as a default value or in a qualification**
The keyword `$DEFAULT$` cannot be used when specifying the default value for a field. The `$DEFAULT$` keyword indicates that the default value should be used for the value, so using it as the default itself creates a self-reference that cannot be resolved.

The keyword `$DEFAULT$` cannot be used when specifying a qualification whether in an active link, filter, or escalation, or on the qualification bar. If there is any arithmetic operation involved, or the operation is a complex one, it is not clear which field's default value is being referenced under all conditions. So, the `$DEFAULT$` keyword is disallowed within qualifications.

199 **Missing or blank name for a macro parameter in the active link action**
A name field in the list of macro parameters is either NULL or blank. When specifying macro parameters, you must supply the parameter name for the value you are specifying. You may omit parameters from the list of parameters if desired, but if they are included on the list, you must provide a name.

200 **Macro value string is longer than the maximum length allowed**
The value specified as the default value for a character field is longer than the maximum allowed by AR_MAX_MACRO_VALUE (256 bytes). Verify the default value and try the operation again. Remember that character strings must be terminated by a '\0' character.

201 **Unrecognized or misused tag for field/value definition**
The tag for indicating the type of field / value reference is either undefined or is not allowed in the current context for the ARFieldValueOrArith structure.

202 **Notify user name is over the maximum size allowed for the name**
The name specified for the user who needs to be notified is too long (max is defined by AR_MAX_NAME_SIZE). You must specify a name that is within the length restrictions.

203 **Value list is empty**
The value list parameter for this call is NULL or contains 0 items. This operation requires at least one value item to be specified.

204 **Notify priority is out of range (1 to 10)**
The value specified for the notification priority is outside the legal bounds for this field. You must specify a value between 1 and 10 for the priority where 1 indicates the highest priority and 10 indicates the lowest priority.

206 **Unrecognized character menu type**
The ARCharMenuStruct structure tag is not recognized. Check the defines in the include file `ar.h` for a list of all the recognized ARCharMenuStruct tags.

207 **Unrecognized character menu refresh code**
The code for the refresh interval for the character menu is not one of the defined choices. Check the include file `ar.h` for a list of the valid codes.

208 **Unrecognized character menu file location**
The code for the location of the file for the character menu is not one of the defined choices. Check the include file `ar.h` for a list of the valid codes.

209 **File name for a character menu is NULL, empty, or too long**
The file name for a character menu is a pointer to NULL, is an empty string, or is longer than the maximum allowed length for a filename. You need to define a legal file name for the character menu file.

210 **Total length of all fields involved in an index is greater than maximum allowed length**
The sum of the length of all fields that are specified for the index is greater than the maximum that is allowed for an index by AR_MAX_INDEX_BYTES (255 bytes). You must remove one or more fields from the index definition to reduce the total length of the index information.

211 **Either zero or greater than the maximum number of allowed fields are specified in a single index**
An index definition must reference from 1 to the number defined by AR_MAX_INDEX_FIELDS (10). Your index definition specifies an index on no fields or an index on more than the maximum allowed number of fields.

212 **Display list is empty**
If you receive this error when doing a field operation, the display list containing information about the display definition for the field is NULL or empty. A field must define at least one display definition.

213 **Qualifier parameter is NULL — must be a pointer to memory**
The qualifier parameter must be a pointer to memory. This memory location is where the base of the qualifier structure for the string being parsed is stored.

214 **One of the structures in the list of fields to display in the query list is invalid**
One of the items in the list of field definitions is invalid. This list of field definitions is for fields that are displayed in the query list. See the associated error message for details on the error.

215 **The total length of the fields and separators in the list of fields for the query list is greater than the maximum allowed**
The total length of all of the fields and separators defined to be displayed in query lists is more than the maximum allowed (128 bytes). You must either remove fields from the list, specify shorter field widths, or reduce the separators between columns to get the total under AR_MAX_SDESC_SIZE.

216 **ARServerInfoList structure is empty**
The server information list is either NULL or empty. In order to set one or more pieces of server information, the settings with their values must be specified.

217 **Server information associated with this tag cannot be updated**
The server information for the indicated tag is read-only data. You are not allowed to update this information. Retry the operation, setting only values that can be updated.

218 **Server information associated with this tag cannot be retrieved**
The server information for the indicated tag is write-only data. You are not allowed to view this information. Retry the operation, requesting only values that can be retrieved (viewed).

219 **Server information data associated with this tag has an incompatible data type**
The server information for the indicated tag represents a piece of information that has a different data type than the type specified in the update operation. Retry the operation, specifying the correct data type for the value.

220 **Local variable number is out of range (must be 0 to 10)**
The code specified for a local variable is outside the legal range for local variables. You must specify a number between 0 and 10.

221 **Query value structure is empty**
The query value structure pointer is NULL. In order to define an assignment to a value from another schema, you must specify a query value structure definition that defines the schema and conditions on that schema.

222 **Query value structure item contains an error**
One or more of the fields in the query definition of an assignment operation contains an error. Refer to the associated error message for more details.

224 **Cannot index a diary field, an unlimited length field, or a field with a maximum length over 255 bytes**
Fields that have lengths over 255 bytes (this includes diary fields and unlimited length character fields) cannot be indexed. You have specified an index that includes a field that meets these criteria. If the index is a multi-field index, you can still create the index if you remove the field that is not allowed.

225 **Set fields actions that reference entries in other schemas can only reference schemas on the same server in a filter/escalation**
A set fields action within a filter or escalation can reference other schemas for pulling data to the current record. However, the referenced schema must be on the same server. You have defined a reference to a schema on a different server. You must either choose another operation (maybe perform the operation in an active link) or move the remote schema to the server where the filter or escalation is being defined.

226 **Type of field, value, or arithmetic operation is not supported on the GetListEntry operation**
The type of value specified in the ARFieldValueOrArithStruct structure is not allowed within a query list. The tag refers to an operation that is only supported during a filter or active link operation.

227 **Unrecognized value for set focus characteristic**
The code for the field where you want to set focus in the set field characteristics action of a filter is not one of the defined choices. Check the include file `ar.h` for a list of the valid codes.

228 **Unrecognized value for set access option characteristic**
The code for the set access option field of the set field characteristics action of a filter is not one of the defined choices. Check the include file `ar.h` for a list of the valid codes.

229 **Function definition is empty**
The function structure pointer is NULL. In order to define an assignment to a function result, you must specify a function definition that defines which function is to be performed and provides the parameters to perform the function.

230 **Unrecognized function code specified**
A function was defined, but the function code was not recognized. Check the defines in the include file ar.h for a list of valid function codes.

231 **Parameter list for a function is empty**
The parameter list for a function is NULL but the number of items field indicates one or more parameters. If the number of items indicates parameters, the parameter list must contain the parameter values. If there are no parameters, the parameter list can be NULL, but the count of parameters must be set to 0.

232 **The types of the values in a value set are not compatible**
The data types of the values in a value set are not compatible with each other. All the types must be the same or compatible types.

233 **Wrong number of parameters or bad parameter values specified in function for the field**
In a set fields action for a filter, active link, or escalation, one of the settings was to assign the result of a function. A function definition that was specified has an error with the specified parameters. Either the wrong number of parameters was specified or one or more of the parameters is the wrong data type. Check the definition of the function to verify the parameters.
The ID of the field that the function is associated with is reported.

234 **Value specified for the filter/escalation 'set fields' process timeout is outside the valid range of 1 to 20 seconds**
The filter set fields process timeout value is not in the legal range. The timeout value can be as low as 1 second and as high as 20 seconds. Retry the operation with the value in this range.

235 **Unrecognized code for user list type**
The code for the type of user list to retrieve is not one of the legal codes. Check the defines in the include file ar.h for a list of supported codes.

236 **Value specified for the license timeout must be 1 or greater (in hours)**
The value specified for the license timeout value was 0 or a negative number. This value must be greater than or equal to 1 hour. The value remains unchanged (defaults to 2 if nothing is set).

237 **Value specified for DDE service name or topic is missing or larger than the maximum allowed length**
The DDE service name or topic field of the DDE active link action is missing or is too large. Both of these fields are required and both have an upper limit of 64 bytes. Check the values and correct as appropriate.

238 **Value for DDE item is larger than the maximum allowed length**
The value specified in the DDE item field is larger than the maximum allowed (32767 bytes). Check the value and correct if necessary.

239 **Unrecognized value set for DDE action code**
The code for the DDE action to perform is not one of the legal codes. Check the defines in the include file `ar.h` for a list of supported codes.

240 **Cannot specify a diary field, a character field with unlimited length or maximum length over 255 bytes, or Status-History as a sort field**
Fields that have lengths over 255 bytes (this includes diary fields, unlimited length character fields, and the Status-History field) cannot be specified as sort fields. You have specified a sort that includes a field that meets these criteria. Specify a sort list that does not include this field.

241 **Cannot specify a diary field, a character field with unlimited length or maximum length over 255 bytes, or Status-History as a field in a get list description**
Fields that have lengths over 255 bytes (this includes diary fields, unlimited length character fields, and the Status-History field) cannot be specified as fields in the list returned by the Get List operation. You have specified a list that includes a field that meets these criteria. You must remove this field from the list.

242 **Type of field, value, or arithmetic operation is only supported for a Filter qualification**
The type of value specified in the ARFieldValueOrArithStruct structure is only allowed within a filter qualification. You must specify a tag that is allowed outside of a filter qualification.

243 **DDE definition is empty**
The DDE structure pointer is NULL. In order to define an assignment to a DDE result, you must specify a DDE definition that defines which DDE operation is to be performed and provides the values to perform the operation.

244 **Value specified for DDE path to program is missing or larger than the maximum allowed length**
The path to the program field of the DDE active link action is missing or is too large. This field is required and has an upper limit of 255 bytes. Check the value and correct as appropriate.

245 **The maximum number of daemons specified is out of range — must be 0 to 15 fast daemons and 0 to 35 list daemons**
An illegal value for the number of arserverd processes to start was specified. There is a limit of 15 fast servers and 35 list servers allowed for the system. Specify values that fall within these limits and reissue the command.

246 **Invalid escalation day format**
The format specified for the day portion of the escalation time is not recognized. Review the structure definitions in the include file (ar.h) and correct the definition to match the rules defined there.

247 **Invalid escalation interval time**
The format specified for the time portion of the escalation time is not recognized. Review the structure definitions in the include file (ar.h) and correct the definition to match the rules defined there.

248 **Invalid escalation day selection**
The format specified for the day portion of the escalation time is not recognized. Review the structure definitions in the include file (ar.h) and correct the definition to match the rules defined there.

249 **Invalid escalation hour selection**
The format specified for the hour portion of the escalation time is not recognized. Review the structure definitions in the include file (ar.h) and correct the definition to match the rules defined there.

250 **Invalid escalation minute selection**
The format specified for the minute portion of the escalation time is not recognized. Review the structure definitions in the include file (ar.h) and correct the definition to match the rules defined there.

251 **Invalid value for enabling or disabling a filter/active link/escalation**
The value specified for the flag to enable or disable a structure is not recognized. Set the value to True (1) to enable the structure or False (0) to disable it.

252 **Unrecognized group in the Sub-Administrator group list for the schema**
One or more groups in the list of groups for the Sub-Administrator is not a group defined on this system. The group must exist to be assigned Sub-Administrator access to the schema.

253 **Inappropriate group in the Sub-Administrator group list for the schema in import**

One or more groups in the list of groups granted Sub-Administrator access to a schema does not exist. The operation being performed is an Import. So, the problem is treated as a warning and the Import will complete successfully.

You can define groups with the missing ids or you can update the definition of the schema to remove the undefined ids.

254 **Subject line is longer than the maximum length allowed**

The value specified as the subject line for an Email notification is longer than the maximum allowed by AR_MAX_NOTIFY_SIZE (255 characters). Verify the subject line value and try the operation again. Remember that character strings must be terminated by a '' character.

255 **Unrecognized submitter mode**

The code specified for the submitter mode is not recognized. Check the defines in the include file `ar.h` for a list of all the submitter modes.

256 **Unrecognized server statistics tag**

The tag specified for the server statistics structure is not recognized. Check the defines in the include file ar.h for a list of all the server statistics tags supported.

257 **Duplicate tag used for several items within the display list**

A display tag to identify the view desired is not unique. There are two or more instances where the same display tag is used.

Each display tag must be unique. Correct the definition to supply unique tags.

258 **The RPC socket number for the Distributed Server daemon is not one of the legal values (390600, 390680 - 390694)**

The value supplied as the RPC socket number, to be used by the Distributed Server daemon for access to the AR System, is not a legal socket number. For the operations that the server must perform, you must specify either 390600 (the Administrator server) or a value between 390680 and 390694 (private servers), inclusive.

259 **Unrecognized no match code**

The code specified as the "no match" code (the action to take when there are no matches to the values within a Set Fields action) is not recognized. Check the defines in the include file `ar.h` for a list of all the "no match" codes.

260 **Unrecognized multiple match code**
The code specified as the “multiple match” code (the action to take when there are multiple matches to the values within a Set Fields action) is not recognized. Check the defines in the include file `ar.h` for a list of all the “multiple match” codes.

261 **SQL command is NULL or empty**
The SQL command pointer is NULL or points to an empty string. In order to define an operation that will execute an SQL command, you must specify the command and set this structure to point to it.

262 **Cannot specify a diary field, a character field with unlimited length or maximum length over 255 bytes, or Status-History as a field to group by**
Fields that have lengths over 255 bytes (this includes diary fields, unlimited length character fields, and the Status-History field) cannot be specified as fields to group by. You have specified a grouping that includes a field that meets these criteria. Specify a grouping that does not include this field.

263 **Unrecognized save login code**
The code specified as the “save login” code (determining whether the user or the administrator has the ability to set the “save login” option on the client) is not recognized. Check the definitions in the include file `ar.h` for a list of all the “save login” codes.

264 **Server name for a character menu is empty or too long**
The server name for a character menu is an empty string or is longer than the maximum allowed length for a filename. You need to define a valid server name for the character menu file.

300 **Malloc failed on server**
The system encountered an error during a call to allocate space. The failure occurred on the Server machine during processing of a call from the client. Generally, this error occurs when there are too many processes running or some processes have grown to occupy most or all of the available memory on your server machine. You can recover that memory by shutting down unneeded processes. In addition, restarting processes that have been running for a while will help by recovering any space those applications have leaked over time.

301 **Error while writing to a file**
An error was encountered while writing to the indicated file. An accompanying message from the operating system provides details of the failure. Check why the write failed and correct the problem before attempting the command again.

302 **Entry does not exist in database**
No entry exists in the database with the Entry ID you specified. Either the Entry ID specified is invalid or the entry has been deleted by another user during the time you were processing it.

303 **Schema does not exist on server**
There is no schema with the indicated name on the server. Either the name specified is incorrect or the desired schema is on another server.

304 **Must be Administrator to perform this operation**
There are a number of operations in the system that are restricted to users with Administrator access. These operations include, but are not limited to, the ability to restructure the database by adding schemas, filters, and active links and the ability to delete existing entries (ARs) from the database.

In order to perform this operation, you must login as a user who is a member of the Administrator group or who has Subadministrator permission to the schema you want to update.

305 **Next available ID produces an Entry ID that overflows Entry ID field — contact the Administrator**
The AR System automatically generates IDs for entries (ARs) in the system. The next available ID will overflow the definition for the Entry ID field.

If you have specified a length for the Entry ID field that is less than the maximum allowed (AR_MAX_ENTRYID_SIZE), you can increase the size of the field to eliminate this problem. If the field is already at the maximum and there is a default value, you can change the default value to a shorter string.

A final option is to reset the next Entry ID counter. This can only be done with the assistance of Remedy Technical Support. There are a number of issues that must be handled to successfully change this counter. Call Remedy Technical Support for assistance if you need to use this alternative.

306 **Value does not fall within the limits specified for the field**

There are limits specified for the indicated field. These limits may be a low and high range limit if the field is an integer or real field, or a maximum length or pattern if the field is a character field. The actual limit encountered and which field the limit is on are reported along with the error message.

Check the value specified against the limits defined for this field. The value must be changed to be within the limits or the limits must be redefined to allow the value specified.

307 **Required field (without a default) not specified**

During submission of a new entry, no value was supplied for the indicated required field. The field does not have a default value specified so a value must be supplied during the submit operation.

You must supply a value for this field, or change the definition of the field to either specify a default value to be used when the user does not supply the value, or change the field to be optional so that a value is not required any more.

308 **Duplicate field in the definition**

A field was specified twice in the field/value list. Each field can only be assigned a single value so each field can only be specified a single time in the field/value list.

Remove the duplicate definition from the list and reissue the command.

309 **Entry has been modified since the get time**

The entry you are attempting to modify has been modified by another user since the time you retrieved the definition. The changes made may or may not impact your changes. You have the option of overriding this error and applying the changes you have made anyway. If you do this, any changes you have made will take precedence over the changes made by the other user. If you do not apply your changes, the other user's changes are retained.

310 **Value has wrong data type for the field**

The value for a field in the field/value list is incompatible with the data type defined for that field. The value of a field must be the same or compatible data type.

You must change the value specified to be one that is compatible with the data type of the field to which the value is being assigned.

311 **Field ID is not related to this schema**
The indicated field ID references a field that is not defined for the current schema.

Either the operation you are attempting is against the wrong schema, against the wrong server, or the structure of the schema has been changed to eliminate the indicated field ID from the schema. You must change to the correct schema to the correct server, or remove the ID from the field list in order to complete the operation.

312 **Data types are not appropriate for arithmetic operation**
The data types of the fields involved in an arithmetic operation are not consistent with the types allowed for that operation. Review the *Action Request System User's Guide* or the *Action Request System Administrator's Guide* for information about the types of operations that are allowed.

313 **Data types are not appropriate for relational operation**
The data types of the fields involved in a relational operation are not consistent with the operations allowed for that operation. Review the *Action Request System User's Guide* or the *Action Request System Administrator's Guide* for information about the types of operations that are allowed.

314 **Field does not exist on current schema**
The indicated field is not related to the current schema.

Either the operation you are attempting is against the wrong schema, against the wrong server, or the structure of the schema has been changed to eliminate the indicated field ID from the schema. You must change to the correct schema to the correct server, or remove the ID from the field list in order to complete the operation.

315 **Delete of schema/field where entries/data still exist — must override to delete**
You are attempting to delete a schema or field which contains data. You must explicitly override this error in order for the operation to succeed. By default, the system will only delete structures when no data is lost.

316 **Failure with a temporary file**
During processing, an error was encountered while attempting to use a temporary file. There will be an associated error message containing the operating system details about the failure.

By default, temporary files used by the server are created in the directory `/usr/tmp`. Check to see if this directory is present and is writable by the user running the `arserverd` program. Also check to see if the temporary directory

has been redirected and, if it has, check that the directory specified exists and is writable by the user running the `arserverd` program. The directory can be a link to another directory as long as the appropriate user can write to it.

Review the reason for failure and correct the problem. Then repeat the operation.

317 **Duplicate schema name**

A schema with the same name already exists on this server. Schema names must be unique.

You must either choose a different name or rename the existing schema so that there is no conflict.

318 **Group does not exist on server**

No group with the indicated ID exists on this server. Either the group ID specified is incorrect or the group with this ID has been changed or deleted from the system.

Check the system to find out what groups are available. If the group has had its ID changed, simply change the ID and reissue the request. Otherwise, use the ID of another group or remove the reference to this group and reissue the request.

319 **Request for length change of core or reserved field is out of limits**

The operation you are performing requests a length change to one of the core fields. The field you are changing has restrictions on its length. Refer to the *Action Request System Administrator's Guide* for information about the use and limits of the core fields.

320 **Too many levels in character menu definition**

The indicated character menu is not defined on the current server.

Either the operation you are attempting is against the wrong server or there is no character menu by that name defined. You must change to the correct server, if the former, or you must specify an existing character menu, if the later.

321 **Character menu is nested too deep**

Menus can contain a maximum of 15 levels. You have specified a menu that contains more than 15 levels at some point within its hierarchy.

322 **Invalid hierarchy in character menu definition**

A character menu definition was encountered where the definition of menu items and children do not form a consistent tree structure. There are definitions where there is no parent item for some children items.

323 **Filter does not exist on server**
The indicated filter is not defined on the current server.

Either the operation you are attempting is against the wrong server or there is no filter defined by that name. You must change to the correct server, if the former, or specify an existing filter, if the later.

324 **Administrator command does not exist on server**
The indicated administrator command (extension) is not defined on the current server.

Either the operation you are attempting is against the wrong server or there is no administrator command defined by that name. You must change to the correct server, if the former, or specify an existing command, if the latter.

325 **Duplicate filter name**
The name you are specifying for this filter is already in use by a filter on this server.

Choose a different name for the filter or rename the existing filter.

326 **Required field cannot be reset to a NULL value**
You are attempting to set a required field to a null value (`$NULL$`). Since the field is a required field, you must define a value for it.

You must either assign a legal value for the field, leave the previous value in the field, or change the structure definition for the field so that it is no longer required.

327 **Cannot perform statistic operation on the data type of the target**
Statistical operations can only be performed on integer and real fields, or with arithmetic operations that result in real or integer fields (for example, the difference between two times). The operation you are attempting is not compatible with these limitations.

328 **Duplicate administrator command name**
The name you are specifying for this administrator command (extension) is already in use by a command defined on this server.

Chose a different name for the administrator command or rename the existing administrator command.

329 **Invalid password for an existing user**
The password you have specified for the user name is not recognized. You must enter the password defined for this user name in order to be able to access the system as that user.

330 **You do not have write access to field**
You do not have write (change) access to a field that you are attempting to change. You must have write access to write into that field.

331 **You do not have write access (for this entry) to field**
You do not have write (change) access to a field that you are attempting to change on this entry (AR). You have access to write into this field for entries that are either assigned to you are were submitted by you, depending on the permission settings. On this entry, you are not serving in the role that allows you change access to the field so you cannot change the field on this particular entry.

332 **You do not have write access (at create time) to field**
You do not have write access to this field at create time. This indicates that you do not have general write access to the field and the create mode of the field is protected. You have access to this field on entries that are either assigned to you are were submitted by you, depending on the permission settings. Since this entry does not exist yet, you are not serving in either role yet so you cannot set the field for this instance during a submit operation.

333 **You have no access to field**
You do not have access (read or write) to the field that you are attempting to access. You must have access to a field in order to read or change its values.

334 **An AR System reserved field definition is incorrect**
There are several reserved field definitions that are reserved for Remedy Corporation. You have specified one of these fields with settings that are incompatible with the limits set on the definition of those fields by Remedy Corporation. See the discussion of the Remedy Core and Reserved fields the *Action Request System Administrator's Guide.*

335 **Format for an AR System reserved field is invalid**
The data contents of a reserved field do not meet the rules for the data in that field. See the discussion of the Remedy Core and Reserved fields in the *Action Request System Administrator's Guide* for details on the data format allowed.

336 **Cannot assign a user to the special Submitter (3), Assignee (4), or Assignee Group (7) groups**
The three special groups (IDs 3, 4, and 7) define per-instance access rights. You cannot assign a user to either of these groups. You become eligible for the extra access permissions allowed to these groups if you are the Submitter or

Assignee for the specific entry being displayed. You are the Submitter if your login name appears in the Submitter field and you are the Assignee if your login name appears in the Assigned-to field.

337 **The server has no license and has hit the sample DB entry limit**
This AR System server is not licensed and you have hit the limit of the number of entries (ARs) you can place in a single schema without purchasing a license from Remedy Corporation or one of its licensed distributors.

338 **Duplicate Entry ID for merged item and specified do not create new ID**
You are merging entries (ARs) into a schema from another source. You have specified an Entry ID in the merge operation that conflicts with an existing ID in the system. You have not specified to create a new ID in case of conflict so the merge operation has failed.

In order to merge the new entry, you must specify the option to create new IDs, or you must delete the existing entry before merging the new one.

339 **Incorrect format for a diary field**
You specified a diary field in the merge operation and the format for the diary data does not match the expected format. A diary field is a formatted character string consisting of a set of user name, timestamp, and character string triplets separated by valid separator characters. Separators are defined in the include file `arstruct.h`.

340 **Incorrect format for the status history field**
You specified the status history field in the merge operation and the format for the status history value does not match the format expected. A status history field is a formatted character string consisting of a set of user name and timestamp pairs organized in order by the various states that status can contain and separated by valid separator characters. Separators are defined in the include file `arstruct.h`.

341 **Cannot run the requested process**
Could not run a process as requested. There may be an associated error that contains more details. The process was an administrator command or a filter or escalation set fields process action. In either case, the process did not run.

Determine why the process did not run and correct the circumstances, if possible. Then, retry the operation.

342 **Cannot find/open the directory file**
The AR System directory file could not be opened. There is an associated error message that describes why the file (`/etc/ar` for UNIX or `Login Information` for Windows) could not be opened. This file contains the name of each AR System server that this client will try to connect to. The file must be present to identify which servers to use.

343 **Error in definition for a filter**
An error was encountered when loading a filter definition from the database. Either an internal error was encountered or manual changes have been made to the contents of the database. If no manual changes to the database have occurred, contact Remedy Technical Support for assistance.

344 **Group type conflict between two groups with the same group ID**
Two groups have been defined with the same group ID, but with different access permissions. All groups are keyed by the group ID. Two or more groups with the same ID really reflect a single group definition with two names. If there are two groups with the same ID, both definitions must specify the same group type.

To correct the problem, either change the group ID for the group being added to be unique or change the type of the new or existing group to be of the same type.

345 **Duplicate active link name**
The name you are specifying for this active link is already in use by an active link defined on this server.

Choose a different name for the active link or rename the existing active link.

346 **Active link does not exist on server**
The indicated active link is not defined on the current server.

Either the operation you are attempting is against the wrong server or there is no active link defined by that name. You must change to the correct server, if the former, or specify an existing active link, if the later.

347 **You have no access to active link**
You are not allowed to access the specified active link. Permissions defined for the active link do not allow you to get the definition of or execute the actions for the requested active link.

Contact your AR administrator if you need access to the active link.

348 **Group cache structure is empty — no access to database is possible**
At startup, the group cache for the database contains no group definitions. Without group definitions, the only user that can access the system is an AR administrator.

This error is usually because of access problems to the flat file database directory or are due to someone deleting data from the database. You need to re-establish the group structure for successful use of the database.

349 **Cannot delete a core field**
You have specified one of the core fields in a delete operation. Core fields cannot be deleted. If you do not want to use the core field, you can ignore it by defining it as a hidden field.

Note that the obsoleted core fields (IDs 9, 10, 11, 12, 13, and 14) can be deleted.

350 **Attempt to divide by zero (0) in arithmetic operation**
During an arithmetic operation, the system detected a divide by 0. You need to restructure your queries to avoid this illegal operation.

351 **Cannot specify qualification on password field**
The password field is a write-only field. You cannot specify any qualification on that field to the database. If we allowed searching on the password field this could lead to security problems, therefore you can search on other fields, but not on the password field.

352 **Notification to special Submitter or Assignee group specified. Reference to the Submitter or Assignee group exists in the referenced Submitter or Assigned-to field. Notification cancelled to prevent a potential infinite loop.**
During a filter or escalation action, there was an attempt to notify the Submitter or Assignee of the entry. However, the field holding this information contains a reference to the Submitter or Assignee group. In order to prevent an infinite loop, the system is cancelling the notification.

If you are receiving this error, reconfigure the notification targets in your system to eliminate this condition.

353 **You have no access to schema**
You are not allowed to access the specified schema. Schema permissions do not allow you to get the definition of the schema or of its fields. You are also not allowed to access the data it contains.

Contact your AR administrator if you need access to the schema.

354 **You have no access to administrator command**
You are not allowed to access the specified administrator command (extension). The permissions on this administrator command do not allow you to get the definition of or execute the requested administrator command.

Contact your AR administrator if you need access to the administrator command.

355 **Must be administrator to access the filter**
Only users with administrator permission may access (for read or change) a filter definition. The current user does not have access to the filter.

356 **Duplicate character menu name**
The name you are specifying for this character menu is already in use by a character menu defined on this server.

Choose a different name for the character menu or rename the existing character menu.

357 **Character menu contains too many items on one level (maximum 99)**
The character menu definition contains too many items on one level of the menu tree. The AR System only allows a maximum of 99 items on any one menu level.

You can use multi-level menus to split large menus into multiple smaller and more manageable menus.

358 **Error while accessing a menu file on the server**
An error was encountered while trying to access a menu definition file that is located on the server. There is an associated error message that contains information about the reason the file could not be accessed.

After you correct the error, the menu will be available.

359 **Set/Create/Delete operations to structures are only supported on RPC socket 390600**
The server is running in a multi-socket mode and the socket in use for this client is not the default socket of 390600. All structural changes must be done using the server connected to the default socket. You must use routines connected to the default socket or restart this tool with the RPC socket definition reset to the default value of 390600.

361 **An unqualified query was issued, and the server has been configured to disallow unqualified queries. You must specify some query criteria to perform a query on this schema**

This server has been configured to not allow unqualified queries and you have issued an unqualified query. You need to specify some qualifying criteria in one or more fields to limit the amount of data being returned from the server.

362 **The flat file server has hit the maximum file size limit. No more entries can be created.**

The underlying database is a flat file database and it has hit the maximum size limit for the data file. You cannot create new entries in the database as it is at its maximum allowed size.

You need to either upgrade to an SQL database or delete some of your data in order to reduce the file size.

363 **Required field assigned $DEFAULT$ but there is no default value for the field**

During submission of a new entry, a value specifying the keyword `$DEFAULT$` was supplied for the indicated required field. The field does not have a default value specified so you cannot use the `$DEFAULT$` keyword during the submit operation.

You must supply a value for this field, or change the definition of the field to either specify a default value, or change the field to be optional so that a value is not required any more.

364 **Diary field cannot be set to a NULL value in a filter**

The filter definition contains a Set Fields action. On this action, there is a diary field that has been assigned a value of `$NULL$`. A diary field is append only. Accordingly, it cannot be assigned a NULL value. You must either specify an alternate value or remove the assignment of NULL for the diary field.

365 **Operation being attempted is not allowed against a server running on this RPC socket**

A request was issued to the server running on the specified RPC socket. The server indicated is a special purpose server and it does not support the requested operation. Servers with RPC socket numbers in the range 390619 to 390669 have limits to the operations performed. Any operations to these servers are generally handled automatically through the API.

If the environment variable `ARRPC` is set (or this variable is set in the ar.ini file), clear this setting and the system will use default routing. If you need to link to a private server for a specific reason, use a server in the private server range (390680 to 390694).

366 **Escalation does not exist on server**
The indicated escalation is not defined on the current server.

Either the operation you are attempting is against the wrong server or there is no escalation defined by that name. You must change to the correct server, if the former, or specify an existing escalation, if the later.

367 **Duplicate escalation name**
The name you are specifying for this escalation is already in use by an escalation on this server.

Choose a different name for the escalation or rename the existing escalation.

368 **Error in definition for an escalation**
An error was encountered when loading an escalation definition from the database. Either an internal error was encountered or manual changes have been made to the contents of the database. If no manual changes to the database have occurred, contact Remedy Technical Support for assistance.

369 **Must be administrator to access the escalation**
Only users with administrator permission may access (for read or change) an escalation definition. The current user does not have access to the escalation.

370 **No schema ID for the schema**
There was no schema id found in the file schema.ar. This is generally caused either by a manual edit to the schema.ar file or by a file that is from a previous release of the AR System. If the former, you need to restore the file from a backup before the manual change. If the later, you need to either restore a file from the correct version, or if you have not run the upgrade program after installing the new version, you need to run the upgrade program to bring the file up to date.

371 **You cannot change the value of the Submitter field — the “Submitter Mode” of the system is configured to be locked**
The system can be configured with a “Submitter Mode” of Locked or Changeable. You have configured the system with a value of Locked. In this mode, the value of the Submitter field cannot be changed after Submission (even by the Administrator).

372 **Could not send notification to notification server**
A filter or escalation was performed and issued a notification via the Notification System. While the server was delivering the notification to the Notification System, an error was encountered. This message is logged by the

server to record the failure. There will be an associated error that contains further details about the failure. The two common cases where this can occur are as follows:

The Notification System server (`ntserverd`) is not running or is not accessible to the AR System server process (`arserverd`). This is the main server for the Notification System and no notifications can be delivered if it is not running. You need to start this daemon for notifications to be delivered.

The call to the Notification Server has a timeout to prevent hanging the AR System server (currently about 8 seconds). If the Notification Server does not acknowledge the message within that interval, the AR System server will continue processing. The message is queued with the Notification System and will likely be delivered. It has just been delayed for a moment.

373 **Must be administrator to access the distributed mapping**
Only users with administrator privileges may read or change a distributed mapping definition. The current user attempted to access a distributed mapping and does not have administrator privileges.

374 **Distributed mapping does not exist on server**
The specified distributed mapping does not exist on the current server. One of these conditions exist:

- The operation you are attempting is against the wrong server. Change to the correct server and re-attempt the operation.
- No distributed mapping with the specified name could be found. Specify an existing distributed mapping and re-try.

375 **Duplicate distributed mapping name**
You cannot assign the same name to more than one distributed mapping. Choose a different name for the mapping, or rename the mapping with which the conflict exists.

376 **Cannot update this entry — this distributed entry is not the master copy**
In a distributed environment, you can only update one entry (marked as the current master) in a chain. You attempted to update a copy other than the master. Perform the update on the current master copy of the entry.

377 **The distributed operation specified in the filter Run Process action contains mismatched quotes**

A distributed operation activated by a filter action includes one or more arguments with single (') or double-quotes ("). At some point in the command line, a mismatch in the amount of quotes exists (there is not an even number of open and closed single or double-quotes). The command line arguments cannot be processed.

The command line in which the mismatch exists is displayed along with an error message. The distributed operation is not performed. Re-attempt the operation using the correct command line syntax.

378 **Must be Distributed Server to perform this operation**

You must be the user (process) “Distributed Server” to run the specified delete operation against the Distributed Server pending and mapping schemas. The distributed schemas should be considered part of the system structure, and should not be deleted or modified. If you still want to delete one or both of these schemas, you can do it from within the Admin tool by selecting the schemas for deletion and ignoring the system warning related to the schemas.

379 **Problem encountered during creation of one of the distributed schemas**

When a system is licensed for the Distributed Server Option, a pair of schemas is automatically created by the server. During the creation of these schemas, an error was encountered by the system. There will be an associated error message with details of the problem. The reason for the failure must be corrected and then the `arserverd` process must be restarted (or sent a SIGHUP signal) to cause the schemas to be recreated.

380 **No item matches filter conditions — this operation has been defined so that no match generates an error**

A filter action was extracting data from another schema, or from another table in the database, and found no rows that matched the qualification criteria. The administrator configured the action to return an error if no matches were found.

381 **Multiple entries match filter conditions — this operation has been defined so that multiple matches generate an error**

A filter action was extracting data from another schema, or from another table in the database, and found multiple rows that matched the qualification criteria. The administrator configured the action to return an error if multiple matches were found.

382 **The value(s) for this entry violate a unique index that has been defined for this schema**
The administrator has defined one or more unique indexes on this schema. The values on the entry you are submitting or modifying duplicate the field (or fields) defined in the unique index. Review the values for the entry to ensure that values which should be unique are indeed unique.

Definition File Errors

400 **The file specified for a schema does not hold a schema definition**
The file that was expected to hold the definition of a schema does not hold a schema definition or is incorrectly formatted. The error is generally caused by a manual change to one or more of the AR System database definition files. If you have manually changed a file, the change you made must be invalid. If you have not changed the file, this is an unexpected error. In this case, contact Remedy Technical Support for assistance.

401 **Schema definition in the source file is not the expected definition**
The file contains a schema definition, but it is not the schema definition that is expected. The error is generally caused by a manual change to one or more of the AR System database definition files. If you have manually changed a file, the change you made must be invalid. If you have not changed the file, this is an unexpected error. In this case, contact Remedy Technical Support for assistance.

402 **Incorrect format in the definition file**
A format error was detected in a definition file. This error is generally caused by a manual change to one or more of the AR System database definition files.
The error message will contain the error if you have manually changed a file, the change you made must be invalid. If you have not changed the file, this is an unexpected error. In this case, contact Remedy Technical Support for assistance.

403 **The schema definition file field count does not match number of fields in the file**
The number of fields defined for the schema does not match the count in the schema header definition. This error is generally caused by a manual change to one or more of the AR System database definition files. If you have manually changed a file, the change you made must be invalid. If you have not changed the file, this is an unexpected error. In this case, contact Remedy Technical Support for assistance.

404 **Field ID is in the core field range but is not recognized**
A field ID in the core range was found, but this is not one of the defined core fields. The ID is therefore an illegal ID and can not be used.

405 **A core definition from the definition file is incorrect**
The definition of one of the core fields is inconsistent with the rules defined for that core field. This error is generally caused by a manual change to the schema definition file. If the definition file has been changed, the change you made must be invalid.

406 **One of the core fields is missing from the schema file definition**
The schema definition being loaded is missing one or more of the required core fields. These fields *must* be present as part of the definition of the schema. You may or may not use them, but they must be present. This error is generally caused by a manual change to the schema definition file. If the definition file has been changed, then the change you made must be invalid.

407 **Duplicate field ID in the definition**
The schema definition contains a duplicate definition for one or more fields. A field ID must be unique within a schema. This error is generally caused by a manual change to the schema definition file. If the definition file has been changed, your change is invalid.

408 **Selection data type requires a limit specification**
All fields with a Selection data type *must* define a list of one or more values that define the selection for that field. A definition was found without that selection definition. This error is generally caused by a manual change to the definition. If the definition has been changed, your change is invalid.

409 **No definition is in the file**
The structure file does not contain any definitions. This error is generally caused by a manual deletion of the contents of a structure file. If the file has been deleted, it must be restored from a backup.

410 **The file specified for a filter does not hold a filter definition**
A file that is specified as holding the definition of a filter does not contain a filter definition. This error is generally caused by a manual deletion of the contents of a structure file. If the file has been deleted, it must be restored from a backup.

411 **The file specified for an administrator command does not hold a command definition**
A file that is specified as holding the definition of an administrator command (extension) does not contain an admin command. This error is generally caused by a manual deletion of the contents of a structure file. If the file has been deleted, it must be restored from a backup.

412 **The import file is in an incorrect format**
The import file contains data that is not part of any legal structure definition supported by the AR System. You must clean out the definition file of all lines that are not part of a legal definition and then retry the import operation.

413 **The file specified for an active link does not hold an active link definition**
A file that is specified as holding the definition of an active link does not contain the definition. This error is generally caused by a manual deletion of the contents of a structure file. If the file has been deleted, it must be restored from a backup.

414 **The file specified for a character menu does not hold a character menu definition**
A file that is specified as holding the definition of a character menu does not contain the definition. This error is generally caused by a manual deletion of the contents of a structure file. If the file has been deleted, it must be restored from a backup.

415 **The file specified for an escalation does not hold an escalation definition**
A file that is specified as holding the definition of an escalation does not contain the definition. This error is generally caused by a manual deletion of the contents of a structure file. If the file has been deleted, it must be restored from a backup.

416 **The file specified for a distributed mapping does not hold a distributed mapping definition**
A file that is specified as holding the definition of a distributed mapping does not contain the definition. This error is generally caused by a manual deletion of the contents of a structure file. If the file has been deleted, it must be restored from a backup.

475 **Too few arguments specified for upgrade program**
The upgrade program that upgrades the database structure to the current structure requires more arguments than you specified. The upgrade program is run automatically as part of the installation operation. You do not need to run this program. Contact Remedy Technical Support for assistance.

476 **Too many arguments specified for upgrade program**
The upgrade program that upgrades the database structure to the current structure requires fewer arguments than you specified. The upgrade program is run automatically as part of the installation operation. You do not need to run this program. Contact Remedy Technical Support for assistance.

Flat File Database Errors

500 **Failure while trying to open the flat file database data file (check Server-directory setting)**
The server could not open the database data file associated with the schema. This file is located in the database directory referenced by the `Server-directory:` setting in the `/etc/ar` file (for UNIX) or the Login Information window (for Windows).

Check that the directory setting is correct. If it is correct, look in that directory for the data file. An associated error message explains why the file could not be opened. If an error message is not present, restore the file from a backup. If it is present, check the permissions on the file. Make sure the user running the `arserverd` process has read and write access to the file. Update ownership or permissions as needed.

501 **The specified flat file database data file is not a valid data file**
The data file opened by the server for the schema is not a legal data file. The format of the file does not match the rules for the format of a data file. If the file has been changed from outside the AR System, you must restore a previous version of the file from a backup. If it has not been changed, contact Remedy Technical Support for assistance.

Remember, the database data and definition files are owned and managed by the AR System. All access to them should be through the AR System tools or API.

502 **Flat file database format error**
The format of one or more rows in the data file is incorrect. Since the format is incorrect, the AR System cannot reliably read and process the data in the file. It must be corrected before you can continue. If the file has been changed from outside the AR System, you must restore a previous version of the file from a backup. If it has not been changed, contact Remedy Technical Support for assistance.

Remember, the database data and definition files are owned and managed by the AR System. All access to them should be through the AR System tools or API.

503 **Failure during write to flat file database data file**
The server encountered an error while trying to write a new or updated entry to the data file. There is an associated error message stating why the system failed during the write operation.

504 **Missing or invalid schema definition file**
The server could not open the schema data dictionary file (`schema.ar`). This file is located in the database directory referenced by the `Server-directory:` setting in the `/etc/ar` file (for UNIX) or the Login Information window (Windows).

Check that the directory setting is correct. If it is correct, look in that directory for the definition file. An associated error message tells why the file could not be opened. If not present, restore the file from a backup. If it is present, check the permissions on the file. Make sure the user running the `arserverd` process has read and write access to the file. Update ownership or permissions as needed.

505 **Error encountered with the flat file database schema file (schema.ar)**
The server could not open the schema data dictionary file (`schema.ar`). This file is located in the database directory referenced by the `Server-directory:` setting in the `/etc/ar` file (for UNIX) or the Login Information window (Windows).

Check that the directory setting is correct. If it is correct, look in that directory for the file. An associated error message tells why the file could not be opened. If not present, restore the file from a backup. If it is present, check the permissions on the file. Make sure the user running the `arserverd` process has read and write access to the file. Update ownership or permissions as needed.

506 **Error encountered with the flat file database definition file (xxx.def)**
The server could not open the database definition file associated with the schema. This file is located in the database directory referenced by the `Server-directory:` setting in the `/etc/ar` file (for UNIX) or the Login Information window (Windows).

Check that the directory setting is correct. If it is correct, look in that directory for the definition file. An associated error message tells why the file could not be opened. If not present, restore the file from a backup. If it is present, check the permissions on the file. Make sure the user running the `arserverd` process has read and write access to the file. Update ownership or permissions as needed.

507 **Error encountered with the flat file database data file (xxx.db)**

The server encountered a problem trying to create and initialize the data file for the new schema. This file is located in the database directory referenced by the `Server-directory:` setting in the `/etc/ar` file (for UNIX) or the Login Information window (Windows).

Check that the directory setting is correct. An associated error message tells why the file could not be opened. Check the permissions on the directory. Make sure the user running the `arserverd` process has read, write, and execute access to the directory. Update ownership or permissions as needed.

508 **Error encountered with the flat file database filter file (filter.ar)**

The server could not open the filter data dictionary file (`filter.ar`). This file is located in the database directory referenced by the `Server-directory:` setting in the `/etc/ar` file (for UNIX) or the Login Information window (Windows).

Check that the directory setting is correct. If it is correct, look in that directory for the file. An associated error message tells why the file could not be opened. If not present, restore the file from a backup. If it is present, check the permissions on the file. Make sure the user running the `arserverd` process has read and write access to the file. Update ownership or permissions as needed.

509 **Error encountered with the flat file database administrator command file (adminext.ar)**

The server could not open the administrator command (extension) data dictionary file (`adminext.ar`). This file is located in the database directory referenced by the `Server-directory:` setting in the `/etc/ar` file (for UNIX) or the Login Information window (Windows).

Check that the directory setting is correct. If it is correct, look in that directory for the file. An associated error message tells why the file could not be opened. If not present, restore the file from a backup. If it is present, check the permissions on the file. Make sure the user running the `arserverd` process has read and write access to the file. Update ownership or permissions as needed.

510 **Error encountered with the flat file database user cache file (user.ar)**
The server could not open the access control user cache file (`user.ar`). This file is located in the database directory referenced by the `Server-directory:` setting in the `/etc/ar` file (for UNIX) or the Login Information window (Windows).

Check that the directory setting is correct. If it is correct, look in that directory for the file. An associated error message tells why the file could not be opened. If not present, restore the file from a backup. If it is present, check the permissions on the file. Make sure the user running the `arserverd` process has read and write access to the file. Update ownership or permissions as needed.

511 **Error encountered with the flat file database group cache file (group.ar)**
The server could not open the access control group cache file (`group.ar`). This file is located in the database directory referenced by the `Server-directory:` setting in the `/etc/ar` file (for UNIX) or the Login Information window (Windows).

Check that the directory setting is correct. If it is correct, look in that directory for the file. Associated error message tells why the file could not be opened. If not present, restore the file from a backup. If it is present, check the permissions on the file. Make sure the user running the `arserverd` process has read and write access to the file. Update ownership or permissions as needed.

512 **Error encountered with the flat file database active link file (actlink.ar)**
The server could not open the active link data dictionary file (`actlink.ar`). This file is located in the database directory referenced by the `Server-directory:` setting in the `/etc/ar` file (for UNIX) or the Login Information window (Windows).

Check that the directory setting is correct. If it is correct, look in that directory for the file. An associated error message tells why the file could not be opened. If not present, restore the file from a backup. If it is present, check the permissions on the file. Make sure the user running the `arserverd` process has read and write access to the file. Update ownership or permissions as needed.

513 **Flat file database data record overflow**

The data record for the entry overflowed the maximum size allowed for a single data entry (AR) in the flat file database. These maximums are 45,000 bytes for the total record size and 40,000 byte for a single diary or long character field.

You must remove some of the data for this record in order to record it. You might want to start another entry linked back to the one that is overflowing.

Alternatively, you can change to an SQL database solution where the record size restriction does not exist.

514 **Contents of the Status-History field in the flat file database are missing or invalid**

The contents of the Status History field for an entry in one of the database files is invalid. The server encountered an unexpected formatting error in one of the definition or data files in the database. If the file has been changed from outside the AR System, you must restore a previous version of the file from a backup. If it has not been changed, contact Remedy Technical Support for assistance.

Remember, the database data and definition files are owned and managed by the AR System. All access to them should be through the AR System tools or API.

515 **Error encountered with the flat file database character menu file (charmenu.ar)**

The server could not open the character menu data dictionary file (`charmenu.ar`). This file is located in the database directory referenced by the `Server-directory:` setting in the `/etc/ar` file (for UNIX) or the Login Information window (Windows).

Check that the directory setting is correct. If it is correct, look in that directory for the file. An associated error message tells why the file could not be opened. If not present, restore the file from a backup. If it is present, check the permissions on the file. Make sure the user running the `arserverd` process has read and write access to the file. Update ownership or permissions as needed.

516 **Error encountered with the flat file database escalation file (escl.ar)**
The server could not open the escalation data dictionary file (escl.ar). This file is located in the database directory referenced by the Server-directory: setting in the `/etc/ar` file (for UNIX) or the Login Information window (Windows).

Check that the directory is correct. It is correct, look in that directory for the file. An associated error message tells why the file could not be opened. If not present, restore the file from a backup. If it is present, check the permissions on the file. Make sure the user running the `arserverd` process has read and write access to the file. Update ownership or permissions as needed.

SQL Database Errors

550 **Failure while trying to open the SQL database (check Dbhome-directory setting)**
An error was encountered while attempting to open a connection to the SQL database. An accompanying error message provides specific details of the failure.

The `/etc/ar` file (for UNIX) or the Login Information window (Windows) contains definitions for the various environment variables which should be set for each database. The entry for `Dbhome-directory:` is the home directory of the database. Other settings that are needed start with the name of the database (for example, `Sybase-Server-Name` or `Oracle-SID`). Check to insure that these values are correct. If you have moved your database or changed these parameters, you must update the entries in this file and then restart the `arserverd` process.

551 **Cannot initialize contact with SQL database**
Failure while trying to connect to the database. This is an internal error and should not occur. Contact Remedy Technical Support for assistance.

552 **Failure during SQL operation to the database**
This is a generic message indicating that an SQL database error was returned during an operation against the database. There is an associated error message which is the full text of the error message from the database that describes the failure encountered.

The error is often a message about running out of space in either the database log or data area. You can correct this by growing the size of the data area or by flushing or growing the size of the log area.

553 **Operation requested is too large for a single SQL command**
The operation you are attempting generates an SQL command that is too large for the database to handle. You need to break the operation into smaller pieces. For example, if you are modifying an entry by changing many data values, modify it in two pieces by first changing half the values and then applying then, and then changing the other half and applying them.

554 **AR System structure error in the SQL database — missing control record**
This is a serious error. The control record for the data dictionary in the database is missing. Contact Remedy Technical Support for assistance.

555 **AR System structure error in the SQL database — missing enumerated value**
This is a serious error. One or more enumerated (selection) values are missing from the data dictionary in the database. Contact Remedy Technical Support for assistance.

556 **Missing data in the SQL database**
This is a serious error. Data that is expected to be found in the database cannot be found. Generally, this error is caused by data missing in an associated table to the base data table. When the data is managed through the AR System, all appropriate cross-references are maintained. If you manually updated data in the database, you may have broken one of the required references.

If you manually changed the database, you need to undo the change you made to restore the database to a consistent state. If you did not manually change the database, contact Remedy Technical Support for assistance.

557 **Too much data in the SQL database (likely data corruption)**
This is a serious error. More data was found in the database than was expected. This error is generally caused by inconsistent definitions in the data dictionary. When the definitions are managed through the AR System, all data is updated appropriately to avoid any extra definitions. If you manually updated the data dictionary definitions, you may have added data that conflicts with existing definitions.

If you manually changed the database, you need to undo the change you made to restore the database to a consistent state. If you did not manually change the database, contact Remedy Technical Support for assistance.

558 **Table entry defining schema or field is missing**
This is a serious error. One of the data dictionary entries defining a schema or field is missing.

If you have manually changed the database, you need to undo the change you made to restore the database to a consistent state. If you did not manually change the database, contact Remedy Technical Support for assistance.

559 **Character string exceeds maximum size allowed**
The total length of a character or diary string exceeds the maximum size of a string allowed in the underlying database (65000 characters for Oracle). If the field is a character string, you can edit the data to be under the maximum allowed. If the field is a diary field, you are no longer able to add data to the field for this entry.

560 **Multiple actions have the same internal index (likely data corruption)**
This is a serious error. More than one action for a filter or active link contains the same internal sequencing number. This number allows ordering of the actions in the proper sequence.

If you manually changed the database, you need to undo the change you made to restore the database to a consistent state. If you did not manually change the database, contact Remedy Technical Support for assistance.

561 **The underlying database does not support qualifications on diary fields and on character fields with a maximum length over 255 bytes**
The SQL database engine being used does not allow qualification on diary fields or character fields with a maximum length over 255 bytes. You are not able to specify a qualification including a reference to these type fields.

562 **Table entry defining help text or change diary for a structure is missing**
The SQL database engine being used stores help text and change diary information in separate tables from the structure definition. The help text or change diary entry for a structure is missing. Even when there is no help text or change diary, a NULL entry is present in these tables.

If you manually changed the database, you need to undo the change you made to restore the database to a consistent state. If you did not manually change the database, contact Remedy Technical Support for assistance.

563 **The underlying database does not support the modulo operator**
The SQL database engine being used does not support the modulo operator. You can use the modulo operator in filter, active link, and escalation qualifications, but you cannot use it to search for entries in the database.

564 **The underlying database does not support field references within a like operation**
The SQL database engine being used does not support field references within a "like" operation. You cannot specify a search that includes a field on the right-hand side of a like operator.

565 **Index for value in SQL command is greater than the number of values returned**
An SQL command has been issued and values are being retrieved from the database. A request has been made for a value from the command. However, the index of the column requested is greater than the *number of columns* that have been requested.

If you are using the SQL option of the Set Fields operation, you need to correct the definition of the SQL command used as the qualification to include sufficient columns or correct the assignment to include one of the values that is returned.

If you are not using the SQL option of the Set Fields operation, this is an internal error. Contact Remedy Technical Support for assistance.

566 **Deadlock during SQL operation to the database**
A deadlock condition was detected within the database. The operation for which this message was received was cancelled.

Because the deadlock condition *should* be trapped and the command automatically retried by the server, you should not receive this error message. If you receive this message, you can continue by reissuing the command. Record the operation you were performing and the message received, and contact Remedy Technical Support for assistance.

590 **SQL database is not available — will retry connection**
The SQL database is not currently available. The process will periodically retry the connection until a connection is obtained or it encounters a fatal error.

591 **SQL database is still not available — continuing to attempt connection**
This message is issued periodically (about every 2 minutes) while the system is attempting to connect to an SQL database that is not responding. It is preceded by message 590. This message is issued as a reminder that the system is not connected, but that it is continuing to retry the connection.

592 **SQL database is now available**
The previously unavailable SQL database is now available and a connection has been established. This message will follow either message 590 or 591.

Access Control Cache Errors

600 **Error while opening/reading from AR System directory file**
Failure while trying to retrieve the list of AR System servers. This list is retrieved only when you are specifying an update to *all* servers. If you start the tool from the command line and you use the command line option `-s` to specify an update to a single server, this error cannot occur as no server list is accessed.

601 **Unrecognized command line option**
The specified command line argument is not a recognized argument for this program. Check the definition of the program for information about the valid command line arguments. The program will not execute with invalid arguments specified.

602 **Cannot specify both -G and -U and cannot specify either more than once**
The command line has both a -G and -U option or either one specified two or more times. One of the two options must be specified and they cannot both be specified in the same command. You must break the operation into two commands.

603 **Must specify one or both of the options -u and/or -g**
Either the -u or -g or both options must be specified for the `arreload` program. You must specify which user or group schema to use to reload the cache.

604 **Must specify the operation to be performed (-G or -U)**
You must specify either the -G or -U option for this command. You need to indicate whether you are adding or deleting a group or user entry.

605 **One or more of the command line options is not appropriate for operation**
A command line argument is not appropriate for the operation being performed. Check the documentation of the command for details on what options are allowed with which operations.

607 **An option that is required for the operation is missing**
A required option for the specified operation is missing. You must supply all of the required options. Check the documentation of the command for details on what options are required with which operations.

608 **A value is expected for the command line option**
The specified option expects a value but none was specified. You must supply an appropriate value for this option.

609 **Invalid tag for Group or User operation**
The specified value is not one of the legal tags (a or d) for the -U or -G option. You must specify whether the system is adding or deleting the entry specified.

610 **Error while accessing server cache file (server.ar)**
The server could not open the access control server cache file (`server.ar`). This file is located in the database directory referenced by the `Server-directory:` setting in the `/etc/ar` file (for UNIX) or the Login Information window (Windows).

Check that the directory setting is correct. If it is correct, look in that directory for the file. An associated error message tells why the file could not be opened. If not present, restore the file from a backup. If it is present, check the permissions on the file. Make sure the user running the `arserverd` process has read and write access to the file. Update ownership or permissions as needed.

612 **Specified user is not registered with this AR server**
The user specified as the administrator user to allow you to perform this command is not a recognized user in the system. You must connect with a valid user with administrator access.

613 **Unrecognized group type — should be 1 (view) or 2 (change)**
The value for the group type option should be an integer code: 1 for a view group and 2 for a change group. The value specified is not one of these values. Reenter the command specifying an appropriate value.

614 **Unrecognized license type — should be 0 (none), 1 (fixed), or 2 (floating)**
The value for the license type option should be an integer code (0 = no license, 1 = fixed license, 2 = floating license). The value you specified is not one of these values. Re-enter the command specifying an appropriate value.

Full Text Messages

651 **ARFullTextInfoList structure is empty**
The Full Text information list is either NULL or empty. In order to set one or more pieces of server information, the settings with their values must be specified.

652 **Full text information data associated with this tag has an incompatible data type or the value is out of range**
The Full Text information for the indicated tag represents a piece of information that has a data type different from the type specified in the update operation, or that the value specified is out of the legal range of values for the full text information setting. Retry the operation, specifying the correct data type for the value.

653 **Full text information data associated with this tag is bad**
The data value specified for one of the Full Text values is an empty string. If a value is specified, it must have a legal value assigned. You must omit this value from the Set operation or supply a value.

654 **Unrecognized full text information tag**
You specified a code for a piece of Full Text information that was not recognized. Check the defines in the include file `ar.h` for a list of all the valid codes that can be specified.

655 **ARFullTextInfoRequestList structure is empty**
The value you specified for the list of information to retrieve from the Full Text was NULL or empty. If you are going to retrieve some information, you must specify what information you are trying to retrieve.

Full Text Search Errors

656 **Could not initialize full text database**
The server encountered an error while attempting to connect to the Full Text database. Check the associated error message for more details about why the attempted connection failed. Resolve the error indicated and restart the server process.

657 **Failed to complete full text operation**
This is a generic message indicating that an error was encountered during a Full Text search operation. There is an associated error message which is the full text of the error message from the Full Text engine that describes the failure encountered.

658 **Failed to read full text documents**
While performing a Full Text search operation, an error was encountered while reading from the Full Text database. There is an associated message which is the full text of the error message from the Full Text engine that describes the failure encountered.

659 **Failed to open ignore word file**
While attempting to retrieve or set the ignore word list, an error was encountered attempting to open the ignore word file. There is an associated error message which is the full text of the error message from the Full Text engine that describes the failure encountered.

This error is often caused by a permission problem with the ignore word file. Check the Full Text home directory and the Full Text index directory for a file named `style/style.stp`. The file should exist in each directory and the user running the AR System server must have read and write access to the files.

660 **Failed to update the ignore word file**
While attempting to update the ignore word list, an error was encountered while updating the ignore word file. There is an associated error message which is the full text of the error message from the Full Text engine that describes the failure encountered.

661 **Failed to relocate full text index directory**
An error was encountered during an attempt was made to move the location of the Full Text index directory. There is an associated error message which is the full text of the error message from the Full Text engine that describes the failure encountered.

This error is commonly encountered when the target location does not exist or does not have appropriate permissions or does not have enough disk space for the existing Full Text index.

662 **Operation requested is too large for a single full text search command**
The operation you are attempting generates a Full Text search command that is too large for the database to handle. You need to break the operation into smaller pieces. For example, if you are searching on many different fields that are Full Text enabled or are issuing many different qualifications against a single Full Text enabled field, you need to reduce the number of operations being performed. Consider using the accrue capability to combine searches for multiple values on the same field.

663 **Full text search on a field that is not a character or diary field is not allowed**
An error was encountered during a Full Text search. An attempt was made to search on a field that is not a Character or Diary field. This message indicates an error in the database structure tables. Contact Remedy Technical Support for assistance.

664 **Full text not allowed with earlier version of a flat file database**
The underlying database is a flat file database. During the installation of the new release, the data dictionary file for schemas (schema.ar) is upgraded to include new information to allow Full Text search to operate. This additional information is not present in this file. It is likely that the upgrade program has not been run on the data files.

You need to run the upgrade program on the database directory. Contact Remedy Technical Support for assistance with running this program.

665 **No users are licensed for full text operations on this server**
An attempt has been made to retrieve or set information about the Full Text environment on the server. However, there are no Full Text licenses defined for the server. If you are not using the Full Text search capability of the product, this error can be ignored. If you would like to use the Full Text capability, you must obtain a license.

666 **Full text operations are disabled — please turn on full text operations and retry your operation**
You attempted to perform an operation that can only be performed when the Full Text State is set to enabled. It is currently set to disabled. To perform this operation, change the Full Text State to enabled and try again.

667 **Full Text operations are enabled. Please turn off Full Text operations and retry your operation.**
You attempted to perform an operation that can only be performed when the Full Text State is set to disabled. It is currently set to enabled. To perform this operation, change the Full Text State to disabled and try again.

668 **Invalid full text query**
The Full Text Search operation failed with illegal syntax. There is an associated error message which is the full text of the error message from the Full Text engine that describes the failure encountered.

This error should not be encountered. If you receive this message, contact Remedy Technical Support for assistance.

669 **Destination full text index directory exists**
You are attempting to move the location of the Full Text Index directory. The target directory already exists. To move the index directory, the directory you will be using cannot already exist. If the directory you specified is not correct, change the name to the directory you want. If it is correct and there is an empty directory in place, remove the directory and retry the operation.

670 **Field is pending a full text operation**
The field you are performing the search on is a Full Text enable field; however, the index does not currently exist on this field. Its creation is pending. It may take from a few minutes to a few hours for the index to be created and put in place depending on the amount of indexing that is pending.
For now, the system will default to the search strategy supported by the underlying database. When the indexing has been completed, the field will be available for Full Text searches again.

671 **Full text executable not found**
The AR System server attempted to start the Full Text indexing process, but it could not find the executable. The server assumes that there is a program named `arservftd` that is located in a directory named bin that is parallel to the directory identified by the Server-directory: setting in the `/etc/ar.conf` file.

672 **Cannot full text index status history field**
The Status-History field (core field id 15) cannot be enabled for Full Text searching. You performed an operation that attempted to index this field.

673 **The query compares two fields that involve full text indexed fields. The full text search capability does not support comparing two fields. The comparison will be made using the functionality of the database.**
The attempted query includes a relational operation between two full text indexed fields. The full text index does not support this operation because the underlying database is relied upon for the search.

674 **The full text query is not sufficiently qualified**
The attempted query involved a full text indexed field and the search term matched too many words in the full text dictionary.

AR NM Daemon Messages

700 **AR NM Daemon: Cannot register with network manager**
Failure encountered while trying to connect to the network management platform. There is an associated error message that contains details on why the connection failed. Correct the cause of the error (for example, run the network manager if the error is that the manager is not running) and rerun the daemon.

701 **AR NM Daemon: Cannot register with network manager event dispatcher**
Failure encountered while trying to connect to the event dispatcher of the network management platform. There is an associated error message that contains details on why the connection failed. Correct the cause of the error (for example, if the event subsystem is not configured, configure it) and rerun the daemon.

702 **AR NM Daemon: Malloc failure**
The system encountered an error during a call to allocate space. Generally, this error occurs when there are too many processes running or some processes have grown to occupy most or all of the available memory on your server machine. You can recover that memory by shutting down any unneeded processes. In addition, restarting processes that have been running for a while will recover any space those applications have leaked over time.

703 **AR NM Daemon: Cannot open the configuration file**
An error was encountered while trying to open the configuration file. Since this file contains the definition of all the mappings that will be performed, the system cannot run without this file. There is an associated error message that contains details on why the file could not be opened. Correct the cause of the error and rerun the daemon.

704 **AR NM Daemon: Failure checking whether configuration file has been accessed**
An error was encountered while checking to see whether there has been an update to the configuration file. Since this file contains the definition of all the mappings that will be performed, the system cannot run without this file. There is an associated error message that contains details on why the file could not be opened. Correct the cause of the error and rerun the daemon.

705 **AR NM Daemon: Format error in configuration file**
The format of one or more lines in the configuration file is not recognizable. If the file has been manually edited, it needs to be restored to its previous format. If the file is only updated through the AR System NM daemons, this error should not occur.

706 **AR NM Daemon: Too many fields specified for one of the traps/events**
The configuration has specified more fields to be mapped than the maximum allowed. The system can map a maximum of 300 fields in any single trap mapping and more than this number are defined.

707 **AR NM Daemon: Unrecognized command line option**
The specified command line option is not a legal option for this program. A complete definition of the allowed command line options can be found in the *Action Request System Programmer's Guide.*

708 **AR NM Daemon: A value is expected for the command line option**
The specified command line option requires an additional value with this program. A complete definition of the allowed command line options can be found in the *Action Request System Programmer's Guide.*

709 **AR NM Daemon: Connection to trapd died**
The arxxxd process lost connection to the trapd process for the network management platform. This error is not expected.

750 **Changes to your event/trap mappings will be lost if you exit**
You have not saved your new or changed definitions. If you exit the tool, all changes will be lost. Unless you are discarding bad changes, do *not* ignore this message — acknowledge it and save your changes before exiting.

751 **The configuration file has been changed by another user while you have been modifying its contents**
While you have been modifying the contents of the mapping file, the file has been changed by another user. If you save your changes, they will overwrite the changes made by the other user.

752 **User does not exist on server**
The specified user does not exist on the server. If all the fields being mapped have an "open" create mode, an unknown (or guest) user is allowed to perform submissions. If guest users are allowed and create modes are open, you can ignore this error and continue. However, if any of the fields being mapped are "protected", you need to be a registered user with update permission to the field in order to perform the submission.

753 **Other fields data truncated for entry**
The total of all data being mapped causes an overflow of the definition in the mapping file. This message is a warning that one or more field definitions have been truncated and will be lost from the mapping specification in order to fit within the file line length limits.

754 **Changes on this screen will be lost if you continue**
Changes you have made to this screen will be lost if you continue. If you are trying to discard the changes, simply continue. If, however, the changes are important, cancel the dismiss operation and save the changes.

758 **You have not opened the file defined in this window — the file will not be opened if you continue**
You have specified a filename in this window. The file was not opened either due to a previous error or because you have not selected the Apply button on the window. If you continue with this operation, the new file will not be opened.

759 **You have not saved the changes you have made — they will be lost if you exit**
You have not saved the changes you have made to this file. If you continue exiting the tool, you will loose the changes you made. To save the changes, cancel the exit operation and save the changes using the Save command on the File menu. Once the changes are saved, you can exit the tool without losing them.

760 **Out of memory**
The system encountered an error during a call to allocate space. Generally, this error occurs when there are too many processes running or some processes have grown to occupy most or all of the available memory on your server machine. You can recover memory by shutting down unneeded processes. In addition, restarting processes that have been running for a while will help recover any space those processes have leaked over time.

761 **No AR System servers registered — cannot validate user to allow configuration**
Cannot connect to any AR System server. Accordingly, the system cannot check permissions or retrieve information about schemas to map into. You cannot run this tool unless at least one AR System server is accessible as a target for traps that are mapped.

763 **Cannot successfully connect to any server as special NM user**
Cannot connect to any AR System server as the current user. The user either has a password that you have not supplied or that is different from the one supplied or the server does not have a registration for the user and does not allow guest users. You cannot run this tool unless you can access at least one AR System server to be the target for traps that are mapped.

764 **Invalid password for user on server**
The password specified for the user is not the password that is recognized for this user. Check the password that you entered (remember that capitalization counts) and enter the corrected password.

765 **Cannot open the network management configuration file**
Cannot open the network management configuration file that you specified. An associated message details why you could not open file. Correct the reason for the failure and attempt to open the file again.

766 **Cannot access the indicated file**
The file that is indicated in the error message cannot be accessed. Check the associated error message for more details.

767 **Must supply a target schema for the mapping**
You must specify a schema that is the target of the trap being mapped. If there is no target schema, no mapping is performed.

768 **Failure while writing to the file**
An error was encountered while trying to save changes to the indicated file. An associated message contains more information about the failure. Correct the failure and save your changes again.

769 **Failure while building set fields screen**
An error was encountered while preparing the Set Fields screen. See the associated error message for details.

770 **You have entered a non-digit character for a numeric field**
You can only enter digits in numeric fields. You have specified a character string in a numeric field. Change the contents of the indicated field to a legal number.

771 **You have entered an improperly formatted value for a real field**
The value for the real field is not a recognized real format. The system will accept real values in decimal or scientific notation. Change the value into a legal real number format and repeat the operation.

772 **Unrecognized selection value**
A selection value was specified that is not one of the legal selection values for the field. You can either add the value as a new option to the selection choices or change the value to one of the legal values.

775 **Invalid mapping of an SNMP varbind variable**
An error was encountered while trying to map an SNMP varbind variable. Check the syntax specified in the mapping and correct it as needed.

791 **Cannot open the SNM configuration file**
The program cannot open the specified SunNet Manager configuration file. An associated error message contains details of the failure. You cannot add new definitions until you can open the file. Correct the reason for the failure (for example, if you do not have read or write access to the file, change your file access permissions) and run the tool again.

792 **Failure while writing to the file**
An error was encountered while trying to write updates to the definition file. An associated error message contains details of the failure. Correct the reason for the failure (for instance, if you are out of space, remove some files to create more space) and perform the operation again.

793 **Failure while trying to create a backup file — operation continuing**
This is a warning message. An error was encountered while trying to create a backup file for the SunNet Manager definition file. We create a backup of the definition file and name it *<filename>*.bak only this time it failed. We are continuing the operation and updating the definition file, however, there is no backup file. An associated error message contains details of the failure.

794 **A value is required for both the label and command**
You must supply both a label and a command. The label is the name that is displayed on the popup menu and the command is the operation that is performed when the label is selected.

795 **Cannot have a quote in the label due to SunNet Manager syntax**
The label you have specified contains a quote. You cannot specify a quote in the label as it is a special character in the SunNet Manager definition syntax. You must change the label so that it does not include a quote character.

796 **Cannot have a quote in the command line due to SunNet Manager syntax**
The command line you specified contains a quote. You cannot specify a quote in the command line as it is a special character in the SunNet Manager definition syntax. You must change the command line to not include a quote character.

797 **Invalid mapping parameters**
You defined a mapping (probably using varbind) where one of the mappings is wrong. You need to correct the mapping and reissue the mapping request.

AR System TC Server messages

800 **AR System TC server terminated when a signal was received by the server**
The TC server for the AR System (`arservtcd`) was terminated by a signal. There is a number following this error which is the signal that was received.

If the signal is 15, you should be able to restart the server and continue to work. The process was either killed accidently or on purpose by a user in your environment.

If the signal is something other than 15, or is one you sent directly to the process, contact Remedy Technical Support for assistance in determining the cause of the problem. The server most likely shut down due to a bug in the system.

802 **AR System server terminated unexpectedly — restarting**
The TC server has detected that one of the child processes that it is responsible for has terminated for some reason. The RPC socket number of the process that is being restarted is reported as an associated message.

The TC server process will relaunch the server that shut down.

803 **AR System server terminated unexpectedly — restarting**
The TC server has detected that one of the child processes that it is responsible for (but that was started before the TC process and so was inherited when the TC process was run) has terminated for some reason. The RPC socket number of the process that is being restarted is reported as an associated message.

The TC server process will relaunch the server that shut down and now becomes the owner of the process.

804 **AR System TC server restarting**
The TC server process has detected a fatal condition with itself. It is in the process of shutting down. While going down, it is launching a new instance of itself to continue the work of the TC server.

840 **Error while opening the AR System TC server lock file**
The AR System TC server (`arservtcd`) opens a lock file named `ar.lck` at startup (or `ar.lck.`*`<rpcnum>`* for server or alternate sockets). These files are used to prevent multiple copies of the `arserverd` process from being started on a single socket simultaneously. There will be an associated file system error message that details what the problem was with the file. Correct the problem indicated by that message and run the TC server again.

841 **Another copy of the TC server is already running**
Only one instance of the AR TC server can be running on a machine at one time. Check to see if there is already a server running. If so, no action is required.

If the server is not running, you have probably run into a known problem with the NFS lock manager on Sun workstations. At times, the lock manager keeps a lock running even when the process holding the lock is no longer running. If no `arservtcd` is running, you can free the lock by deleting the lock file. You should be able to start the `arservtcd` process once this file has been removed.

842 **Malloc failed on TC server**
The system encountered an error during a call to allocate space. The failure occurred on the TC Server machine during processing of a call from the client. Generally, this error occurs when there are too many processes running or some processes have grown to occupy most or all of the available memory on your TC server machine. You can recover that memory by shutting down unneeded processes. In addition, restarting processes that have been running for a while will help by recovering any space those applications have leaked over time.

843 **Failure during fork operation — cannot launch child server**
A failure was encountered while trying to launch a child process. There should be an associated message that provides details about the failure. The child process was not launched. You will have to correct the reasons behind the failure and try the operation again.

844 **Failure during exec operation — cannot launch child server**
A failure was encountered while trying to launch a child process. There should be an associated message that provides details about the failure. The child process was not launched. You will have to correct the reason behind the failure and try the operation again.

845 **Have tried to launch this server more than four times within 30 seconds — abandoning attempt to start this server**
The TC server process has attempted to launch a child process more than 4 times within a 30-second window. The RPC socket of the process is identified in an associated message. Since this process continues to fail, the TC server will stop trying to launch the process and will remove the process.

Messages from the AR System Full Text Search server

855 **Pending list lock file exists**

856 **Pending list lock file does not exist**

857 **Pending list file open failed**
A full text enabled field was updated. The file which holds the list of fields that have indexing pending could not be opened when you attempted to add a note about the updated field. An associated error message describes the details of the failure encountered.

858 **Pending list file write failed**
A full text enabled field was updated. The file which holds the list of fields that have indexing pending could not be written to when you attempted to add a note about the updated field. An associated error message describes the details of the failure encountered.

859 **Record does not exist in the pending list file**
A full text enabled field was updated. The file which holds the list of fields that have indexing pending could not be written to when you attempted to add a note about the updated field, because the record associated with the updated field could not be found. An associated error message describes the details of the failure encountered.

860 **Failed to truncate the pending list file**
A full text enabled field was updated. The file which holds the list of fields that have indexing pending could not be truncated when you attempted to add a note about the updated field. An associated error message describes the details of the failure encountered.

861 **Failed to purge pending list file**
During a re-index operation, an error was encountered while attempting to purge the list of pending changes. An associated error message describes the details of the failure encountered.

862 **Too few arguments for the full text indexer process**
The full text indexer process (`arservftd`) requires a minimum set of arguments. You have not provided the minimum set of arguments. Refer to the *Action Request System Programmer's Guide*, or the on-line man pages, for information about the expected arguments.

863 **Too many arguments for the full text indexer process**
The full text indexer process (`arservftd`) has a maximum number of arguments allowed. You have exceeded the limit. Refer to the *Action Request System Programmer's Guide*, or the on-line man pages, for information about the expected arguments.

864 **Invalid action for the full text indexer process**
One of the arguments for the full text indexer process (`arservftd`) indicates the action for the program to take. The action code supplied is not recognized. Refer to the *Action Request System Programmer's Guide*, or the on-line man pages, for information about allowed routines.

865 **Full text indexer process terminated when a signal was received by the server**
The server for the full text search feature (`arservftd`) was terminated by a signal. There is a number following this error which is the signal that was received.

If the signal is 15, you should be able to restart the server and continue to work. The process was either killed accidently or on purpose by a user in your environment.

If the signal is something other than 15, or is one you sent directly to the process, contact Remedy Technical Support for assistance in determining the cause of the problem. The server most likely shut down due to a bug in the system.

866 **Another copy of the full text indexer process is already running**
Only one instance of the full text indexer process can be run on any given machine. Check to see if there is already a copy of `arservftd` running. If so, no action is required.

867 **Schema ID/name, field ID, entry ID, and action are required together**
When specifying an operation against a specific entry, you must supply a schema ID or name, a field ID, and an entry ID. One or more of these values is missing. Refer to the *Action Request System Programmer's Guide*, or the on-line man pages, for more information.

868 **Too many arguments specified for optimize argument**
The `optimize` argument has been specified for the full text indexer process. There is a limit to the other arguments allowed when this option is specified. In this case, one or more of the arguments that are not allowed have been specified. Refer to the *Action Request System Programmer's Guide*, or the on-line man pages, for more information.

869 **Too many arguments specified for the retry argument**
The `retry` argument has been specified for the full text indexer process. There is a limit to the other arguments allowed when this option is specified. In this case, one or more of the arguments that are not allowed have been specified. Refer to the *Action Request System Programmer's Guide*, or the on-line man pages, for more information.

Electronic Mail Interface Messages

950 **AR System error**

951 **The submitted mail message did not contain a schema name**
The mail message does not contain a line identifying which schema is the target of the submission and there is no default schema configured for the `armaild` daemon. The message can be resubmitted with a schema specified, or a default schema must be configured for the `armaild` process.

952 **The submitted mail message did not contain a body providing details for the new entry**
There isn't any text in the body of the mail message specifying values to be assigned for the new entry. In order to create a new entry using the mail daemon, one or more values must be provided. The message can be resubmitted with the additional information added.

953 **The submitted mail message had a format that was not recognized**
The format of the mail message does not match the format that is expected. Review the message and check the format against the format that is documented in the *Action Request System User's Guide*.

954 **Usage: armaild [-f filename] [-n number-of-intervals] [-d]**
One or more unrecognized command line values were specified. The error message indicates the expected syntax of the command line. Remove the illegal command line value and reissue the command.

955 **Missing value for command line parameter**
A command line argument that requires a value was specified but no value was provided. You must supply an appropriate value for the argument.

956 **Failure while accessing mail configuration file**
The system encountered an error while attempting to access the configuration file indicated on the command line. There is an associated message that contains more details about why the file could not be accessed. Most likely, the file specified does not exist (either a misspelling in the filename or the file has been moved). Correct the reported problem and reissue the command.

957 **The submitted mail message specified a schema that does not match the required schema**
The mail message specifies a submission to a schema that is not the schema specified as the required schema in the mail configuration file. This daemon has been configured to support submissions to only a single specific schema. A user has attempted to submit an entry to another schema.

958 **The submitted mail message specified a server that does not match the required server**
The mail message specifies a submission to a server that is not the server specified as the required server in the mail configuration file. This daemon has been configured to support submissions to only a single specific server. A user has attempted to submit an entry to another server.

959 **The server specified for this message is not a recognized server — access was attempted but no server was found**
The `armaild` process was run, specifying the -x command line option to connect to a specific server. However, the server or the AR System on that server is not active. In order to work, the process must be able to successfully connect with at least one server.

964 **armaild attempt to log in to the mail post office failed**
`armaild` failed when trying to log on to the Microsoft Mail post office. Verify that the Microsoft Mail login and password given during installation are valid, and that the post office is accessible.

965 **Could not resolve the armaild address**
The `armaild` address specified during installation is ambiguous. The address is not considered unique within the Microsoft Mail post office.

966 **Could not read mail from the mail post office**
`armaild` could not read a piece of mail from the post office. Insure the Microsoft Mail post office is still accessible.

967 **Could not log off from the mail post office**
armaild could not log off from the post office. Insure the Microsoft Mail post office is still accessible.

968 **Attempt to send mail to the mail post office failed. To: <destination>**
The address indicated is either ambiguous, does not exist in the Microsoft Mail post office, or is not accessible. Use a valid address, and insure that the Microsoft Mail post office is still accessible.

User Tool Messages

1000 **Cannot allocate memory on startup**
The system encountered an error during a call to allocate space. Generally, this error occurs when there are too many processes running or some processes have grown to occupy most or all of the available memory on your server machine. You can recover memory by shutting down unneeded processes. In addition, restarting processes that have been running for a while will help by recovering any space those processes have leaked over time.

1001 **The -e and -i options require a macro name**
Either the `-e` or `-i` option was specified as the last option on the command line. Both of these command line options require the name of the macro that is to be run at startup. You must either remove the option or specify a macro to go with the option.

1002 **The -p option requires a substitution parameter and a value**
The `-p` option was specified as the last option on the command line. This command line option requires that the name of a parameter and the value for that parameter be supplied. You must either remove the option or specify a parameter and value to go with the option.

1003 **The format for the -p option is -p name = value**
The `-p` option requires the name of a parameter followed by an equal sign followed by a value. One or more pieces of the definition are missing. If either the name or value contains spaces or special characters, remember that the value must be quoted to be treated as a single value on the command line.

1004 **Unrecognized command line option**
The specified command line option is not recognized. Refer to the appendix in the Action Request System User's Guide that describes the command line options for the User Tool.

1005 **Parameters can be specified only if you specify a macro first**
You have specified a `-p` command line option that specifies values for parameters in a macro that is to be run at startup. However, there is no macro defined (by using the `-e` or `-i` options). If you specify parameters to be use in a macro, you need to specify the macro that uses them.

1006 **Cannot read the configuration file — ARHOME variable may be set incorrectly**
Configuration information for your session is stored in a configuration file named `config` that is located in the directory indicated by the `ARHOME` environment variable (if there is no `ARHOME` environment variable set, it is in a directory named `arHome` under your UNIX login directory).

The program cannot read the contents of that file. Check the setting of the `ARHOME` environment variable, if you have defined an alternate directory. Check the permissions on the file to insure you have read access (and write access if you intend to update the configuration file).

1007 **Cannot connect to the X server**
The `aruser` program (the User Tool) on UNIX is an X program. It requires that an X windowing system be running to allow the program to operate. Currently, there is not a window system running in your environment. You need to start a windowing system and then restart the `aruser` program.

1008 **The macro name in a parameter is longer than the maximum allowed length**
The macro name specified on the command line is too long. The maximum length for a macro name throughout the AR System is 30 bytes. You need to specify to a legal macro name defined in your system.

1009 **Two startup macros have been specified**
Two or more startup macros have been specified on the command line. The AR System User Tool allows a maximum of one macro specified at startup. You can specify a macro that runs other macros, if desired. Remember that both the `-e` and `-i` options specify macros to be run so only one can be specified on the command line at the same time.

1010 **No servers are defined for the AR System in the directory file**
No servers have been specified for the `aruser` program to connect to. There must be one or more servers defined in the `/etc/ar` file or, if starting the `aruser` program from the command line, one or more servers must be defined using the `-x` command line option.

1011 **Two directories for startup macros have been specified**
The -d command line option has been specified two or more times. This option can be specified only once. Re-enter the command only specifying one -d command line option for the directory that contains the startup macro you want to run.

1012 **The -d option requires a directory name**
The -d command line option requires that you specify a directory. Re-enter the command either omitting the -d option, if not needed, or supplying an appropriate directory name.

1013 **The directory name in a parameter is longer than the maximum allowed length**
The directory name specified in the -d command line option is longer than the maximum length allowed for a directory name. Check the syntax of the command line to insure you have not omitted any required spaces between options.

1014 **A directory can be specified only if you specify a macro**
You specified the -d command line option but no startup macro was specified using either the -e or -i command line option. Re-enter the command either omitting the -d option or specifying a startup macro with the -e or -i option.

1015 **The -x option requires a server name**
The -x command line option requires that you specify a server name. Re-enter the command either omitting the -x option, if not needed, or supplying an appropriate server name with the -x option.

1016 **The server name in a parameter is longer than the maximum allowed length**
The server name specified in the -x command line option is longer than the maximum length allowed for a server name. Check the syntax of the command line to insure you have not omitted any required spaces between options.

1100 **The entry was successfully created with ID =**
This is an informational message. The submit operation was completed successfully. This message is presented to supply the entry ID of the newly submitted entry.

1101 **The preceding error occurred during the execution of an active link**
The error being reported was encountered while running an active link. This message gives the name of the active link and the specific action within the active link where the error occurred. This information is useful for debugging active links. In general, you can simply ignore this message.

1102 **Additional errors were truncated**
This is an informational message. The operation that was being performed generated a large number of error messages. The most serious of these messages are displayed. However, to avoid overflowing the screen, some of the messages have been suppressed.

1200 **No matching entries (or no permission to entries) for qualification criteria**
No entries were found that match the qualification criteria you have specified. There are two reasons that entries are not returned:

- The criteria you specified do not match any entries.
- You do not have access to the entry or to the fields you are specifying in the entry.

1201 **New text is longer than the maximum allowed length — truncating to fit**
The text you have specified is too long for the field you are trying to update. The field has a maximum length defined and the text that you have entered is too long for the field. The extra text is truncated so that it fits in the target field.

1202 **A recording operation is in progress — your current recording will be lost if you exit**
You have specified that you want to exit the User Tool; however, there is a macro recording operation in progress. If you want to save the macro you are recording, select Cancel Exit and save the macro. Once the macro is saved, you can exit without losing the marco. If you do not want to save the macro being recorded and you want to exit the program, select Exit.

1203 **This record has been updated by another user since you retrieved it**
The entry you are attempting to apply changes to has been modified by another user since you last changed it. You can apply your changes over the changes of the other user or you can cancel the operation (not save your changes), retrieve the entry again, and re-enter your changes.

If you are updating a diary field, your changes do not overwrite changes made by the other user. If you are changing fields where the data you enter is supposed to be the final value, continue with the operation (saving your changes).

1204 **Partial selections will become full selections on playback**

Macros cannot record operations continuing from partial selections in a query list. The contents of the query list are likely to be different when the macro is replayed so the macro cannot reasonably record any information about partial selections.

The macro records the operation as if *all* the items in the query list were selected.

1205 **New fields added/made accessible by Administrator — added as hidden fields to local view file**

An Administrator has updated the schema being opened. One or more new fields has been added to the schema. However, you have a customized view of the schema. To avoid any possible conflict with your customizations, the new field is added as a hidden field on your view. You can use the Customize View operation in the User Tool to locate the new field, move it to an appropriate location, and make it visible if you want to use it.

1206 **This server does not have a license. You are allowed restricted access for investigation purposes. This server should not be used for production work until a license is obtained.**

The server that is indicated in the message is not licensed. A connection has been opened for evaluation purposes only. You are allowed full access to the capabilities of the system that allow you to define schemas and workflow, but you are only allowed to create a maximum of 30 to 50 entries in any single schema.

1207 **A recording operation is in progress — current recording will be lost if you continue**

You have started recording of a macro and then requested that the macro recording be cancelled. If you select Cancel Recording, the recorded operations are lost. If you want to continue with the recording, select Continue Recording.

1208 **You have not saved changes on this screen — they will be lost if you continue**

You have made changes to the data on the current screen. If you continue with the Dismiss operation, all of your changes will be lost. If you want to keep your changes, select Cancel Dismiss and save the changes. If you want to discard the changes, select Continue.

1209 **You have not saved changes on this screen — they will be lost if you continue**
You have made changes to the data on the current screen. If you continue with the Next or Previous operation, all of your changes will be lost. If you want to keep your changes, select Cancel Dismiss and save the changes. If you want to discard the changes, select Continue.

1210 **You have not saved changes on the properties screen — they will be lost if you continue**
You have made changes to the data on the Schema Item Properties window associated with the Customize View window. If you continue with the Dismiss operation, all changes you have made will be lost. If you want to keep your changes, select Cancel Dismiss and save the changes. If you want to discard the changes, select Continue.

1211 **You have not saved changes on a diary or text edit window — they will be lost if you continue**
You have made changes to the data on a Diary or Text Edit window. If you continue with the Dismiss operation, all changes you have made will be lost. If you want to keep your changes, select Cancel Dismiss and save the changes. If you want to discard the changes, select Continue.

1212 **Query window is now connected to a different schema — continuing will change the current schema**
The Query window is connected to a different schema than the schema being referenced in the window where you are performing the Show Query operation. If you continue this operation, the Query window will change to the new schema. If you cancel this operation, the Show Query operation is cancelled and the Query window remains unchanged.

1214 **Macro recording is active — operation recorded but no database operation performed**
To avoid dummy submissions to the database and to prevent incorrect bulk modifications of data, the Submit and Modify All operations are not performed when you are recording a macro. This message is displayed to indicate that the operation is complete and would have been performed, if the macro recording was not in progress.

1215 **Language defined by LANG environment variable not recognized — using default on server**

The language specified using the LANG environment variable is not one of the supported languages. The default of “C” is used for all messages.

Check the setting of the LANG variable to insure it is set to a language recognized by your system and by the server machine. Clear this environment variable or set it to a recognized language to avoid this warning in the future.

1216 **This operation will modify <#> entries. Do you wish to continue?**

The operation you are performing modifies many entries in the database. The exact number of entries that will be modified is contained in the message. If you wish to continue with the modification, select Continue. If you did not expect to be modifying multiple entries, select Cancel and check the operation you are performing. This message is issued only from the Modify All window.

1217 **You have not saved changes on a diary or text edit window — they will not be included in the current apply if you continue**

You have made changes to the data on a Diary or Text Edit window opened from the current window. The data in these windows will not be included if you select Continue. If the data is important, select Cancel Dismiss, save the data in the Diary or Text Edit window by selecting Apply in that window, and then select Apply on the current window again. To not save the data in the Diary or Text Edit window, select Continue to continue with the Apply operation.

Note that the data in the Text Edit or Diary windows may be overwritten by the existing text in the windows after the refresh operation after a successful modification.

1218 **A Set Field action was attempted — you are on a Display window so no action was taken**

An active link was performed that attempted to perform a Set Fields operation. However, you are on a Display window and a Set Fields operation cannot be performed on a Display window. This message is for information telling you that no operation was performed.

If you are an Administrator, you can use the $OPERATION$ keyword in the active link conditional to check for a Display window and make sure that the active link does not perform any operations if it is fired from a Display window. This will suppress this error message.

1221 **The specified file already exists**

The file you specified as the target of your report already exists. You can choose to overwrite the file or to cancel the report operation.

1222 **Unable to find help for the specified field**
A failure occurred while trying to retrieve help text for the field. An associated error message provides details of the failure.

1223 **Duplicate name for macro. Do you want to overwrite the existing macro?**
You have specified a name for a new macro that is the same as the name of an existing macro. You can choose to overwrite the existing macro if you want the new definition to replace the old definition, or you can cancel the operation and change the name for the new macro, leaving the existing macro definition.

Remember, the name for a macro is a combination of the name and the directory it is stored in. You can have a macro with the same name in two different directories without any conflict.

1224 **Duplicate name for custom report. Do you want to overwrite the existing custom report?**
You have specified a name for a new custom report that is the same as the name of an existing custom report. You can choose to overwrite the existing custom report if you want the new definition to replace the old definition, or you can cancel the operation and change the name for the new custom report. leaving the existing custom report definition.

Remember, the name for a custom report is a combination of the name and the directory it is stored in. You can have a custom report with the same name in two different directories without any conflict.

1225 **Duplicate name for user command. Do you want to overwrite the existing user command?**
You have specified a name for a new user command that is the same as the name of an existing user command. You can choose to overwrite the existing user command if you want the new definition to replace the old definition, or you can cancel the operation and change the name for the new user command, leaving the existing user command definition.

Remember, the name for a user command is a combination of the name and the directory it is stored in. You can have a user command with the same name in two different directories without any conflict.

1227 **Failure trying to expand the character menu**
An error was encountered while trying to expand the definition of a character menu. An associated error message contains the details of the failure.

1228 **The selected macro definition will be deleted**
This prompt is issued whenever you request to delete a macro definition. Since the delete operation is permanent, this gives you a prompt to make sure you do not accidentally delete the wrong definition. Select Continue to continue with the operation and delete the macro, or select Cancel to cancel the delete operation and retain the macro definition.

1229 **The selected custom report definition will be deleted**
This prompt is issued whenever you request to delete a custom report definition. Since the delete operation is permanent, this gives you a prompt to make sure you do not accidentally delete the wrong definition. Select Continue to continue with the operation and delete the custom report, or select Cancel to cancel the delete operation and retain the custom report definition.

1230 **The selected user command definition will be deleted**
This prompt is issued whenever you request to delete a user command definition. Since the delete operation is permanent, this gives you a prompt to make sure you do not accidentally delete the wrong definition. Select Continue to continue with the operation and delete the user command, or select Cancel to cancel the delete operation and retain the user command definition.

1232 **Macro recording is active — modifications will be made to the entry but will not be recorded in the macro**
The user is recording a macro in the User Tool. During the processing of the macro, any operation that performs a global (modify all) or unrecoverable (delete) was performed. No action was taken but the operation was recorded and will replay on later use.

1301 **Schema does not exist — make a selection from the list**
You have entered an unrecognized schema name. The list box lists all valid schemas. Select a schema from the list and either double-click on it or select the Apply button.

1401 **Cannot open view file**
The file containing the cached view for the schema cannot be opened. This is generally caused by permission problems in your `ARHOME` directory. Check the permissions to this directory. You need to have read and write access to the directory and to the view files (files ending in `.arv`) in that directory. Correct the access problem and retry the operation.

1402 **Cannot open definition file**
The file containing the cached definition for the schema cannot be opened. This is generally caused by permission problems in your ARHOME directory. Check the permissions to this directory. You need to have read and write access to the directory and to the definition files (files ending in .arf) in that directory. Correct the access problem and retry the operation.

1404 **Cannot open default file**
The file containing the user-defined defaults for the schema cannot be opened. This is generally caused by permission problems in your ARHOME directory. Check the permissions to this directory. You need to have read and write access to the directory and to the default files (files ending in .ard) in that directory. Correct the access problem and retry the operation.

1405 **Cannot open configuration file**
The configuration file cannot be opened. This is generally caused by permission problems in your ARHOME directory. Check the permissions to this directory. You need to have read and write access to the directory and to the configuration file (config) in that directory. Correct the access problem and retry the operation.

1406 **Cannot open the specified file**
The file indicated in the message cannot be opened. There should be an associated error message that provides additional information about the failure. Correct the problem and retry the operation.

1407 **Cannot open a temporary file**
A failure was encountered trying to open a temporary file. These files are opened in the directory /tmp. There should be an associated error message that provides details about the failure. Correct the problem and retry the operation.

1408 **Cannot read from the specified file**
An error was encountered while attempting to read from the file identified in the error message. There should be an associated error message that provides details about the failure. Correct the problem and retry the operation.

1409 **Cannot write to the specified file**
An error was encountered while attempting to write to the file identified in the error message. There should be an associated error message that provides details about the failure. Correct the problem and retry the operation.

1411 **Cannot write to the definition file**
An error was encountered while attempting to write to the definition file for this schema. These files are stored in your ARHOME directory (files ending in .arf). There should be an associated error message that provides details about the failure. Correct the problem and retry the operation.

1412 **Cannot write to the view file**
An error was encountered while attempting to write to the view file for this schema. These files are stored in your ARHOME directory (files ending in .arv). There should be an associated error message that provides details about the failure. Correct the problem and retry the operation.

1413 **Cannot write to the default file**
An error was encountered while attempting to write to the user-defined defaults file for this schema. These files are stored in your ARHOME directory (files ending in .ard). There should be an associated error message that provides details about the failure. Correct the problem and retry the operation.

1414 **Cannot reset user view**
An error was encountered while trying to reset your view. There should be an associated message that provides details about the failure. Correct the problem and retry the operation.

1415 **Cannot restore previous view**
An error was encountered while trying to restore your previous view. There should be an associated message that provides details about the failure. Correct the problem and retry the operation.

1416 **Cannot make backup view**
An error was encountered while trying to create a backup copy of the view file. There should be an associated message that provides details about the failure. The operation continues without a creating a backup file.

1450 **Failure during fork operation**
A failure was encountered while trying to launch a child process. There should be an associated message that provides details about the failure. The child process was not launched. You will have to correct the reason behind the failure and try the operation again.

1451 **Failure trying to run a process to load a field value**
A failure was encountered while trying to launch a child process that is retrieving data for a field. There should be an associated message that provides details about the failure. The child process was not launched so no data is changed in any fields. You will have to correct the reason behind the failure and try the operation again.

1500 **Out of memory**
The system encountered an error during a call to allocate space. The failure occurred on the client machine (the one running the `aruser` program, the User Tool). Generally, this error occurs when there are too many processes running or some processes have grown to occupy most or all of the available memory on your client machine. You can recover that memory by shutting down unneeded processes. In addition, restarting processes that have been running for a while will help by recovering any space those applications have leaked over time.

1501 **Cannot record operation:**
An error was encountered while trying to add the specified item to the list of recorded operations. The cause of the problem is probably that the system is out of memory. The indicated operation will not be a part of the macro you are building if you continue. You should probably cancel the recording operation and treat the error as if an "Out of memory" error was encountered (see error message 1500) and then restart recording your macro.

1502 **Only integer data types can be displayed using numeric text (defaulting to text)**
You requested a field type of numeric text for a field that is not an integer field. Only integer type fields can have a field type of numeric text. The field type for this field is text. If a text field type is acceptable, you can ignore this message. Otherwise, specify a field type that is appropriate for the datatype for this field.

1503 **Only selection data types can be displayed using checkboxes (defaulting to text)**
You requested a field type of checkbox for a field that is not a selection field. Only selection type fields can have a field type of checkbox. The field type for this field is text. If a text field type is acceptable, you can ignore this message. Otherwise, specify a field type that is appropriate for the datatype of the field.

1504 **Only selection data types can be displayed using exclusive choice boxes (defaulting to text)**
You requested a field type of exclusive choice (radio buttons in Motif) for a field that is not a selection field. Only selection type fields can have a field type of exclusive choice. The field type has been changed to text for this field. If a text field type is acceptable, you can ignore this message. Otherwise, specify a field type that is appropriate for the datatype of the field.

1505 **Unrecognized field type (defaulting to text)**
You have specified an unrecognized field type for a field. The field type has been changed to text for this field. If a text field type is acceptable, you can ignore this message. Otherwise, specify a field type that is appropriate for the datatype of the field.

1506 **Problems creating new field**
An error was encountered while attempting to create a field on the schema. This error usually indicates a serious resource shortage for the application. The first step is to treat the error like an “Out of memory” problem (see error message 1500). If this does not eliminate the problem, contact Remedy Technical Support for assistance.

1507 **View file format problem: invalid schema name**
The schema name found in the view file does not match the name of the schema in the definition file. The view file with the error is deleted and reloaded the next time you access the schema.

1508 **View file format problem: missing schema name**
The view file for the schema does not have a schema name. The view file with the error will be deleted and reloaded the next time you access the schema.

1509 **View file format problem: field clause**
A field clause was not found where expected in the view file. So, the format of the view file is not what is expected. The view file with the error will be deleted and reloaded the next time you access the schema.

1510 **View file format problem: field definition**
An invalid clause was encountered in a field definition in the view file. So, the format of the view file is not what is expected. The view file with the error will be deleted and reloaded the next time you access the schema.

1511 **View file format problem: invalid schema/active link end**
The end clause of a schema or active link definition was not found where expected in the view file. So, the format of the view file is not what is expected. The view file with the error will be deleted and reloaded the next time you access the schema.

1512 **View file format problem: begin active link**
The only information expected after the end clause of a schema is the definition of active links. When processing the file contents after the end clause, an entry was found that was not the start of an active link. So, the format of the view file is not what is expected. The view file with the error will be deleted and reloaded the next time you access the schema.

1513 **View file format problem: active link definition**
An invalid clause was encountered in an active link definition in the view file. So, the format of the view file is not what is expected. The view file with the error will be deleted and reloaded the next time you access the schema.

1515 **Definition file format problem: invalid schema name**
The schema name found in the definition file does not match the name of the schema. The definition file with the error will be deleted and reloaded the next time you access the schema.

1516 **Definition file format problem: missing schema name**
The definition file for the schema does not have a schema name. The definition file with the error will be deleted and reloaded the next time you access the schema.

1517 **Definition file format problem: field clause**
A field clause was not found where expected in the definition file. So, the format of the definition file is not what is expected. The definition file with the error will be deleted and reloaded the next time you access the schema.

1518 **Definition file format problem: field definition**
An invalid clause was encountered in a field definition in the definition file. So, the format of the definition file is not what is expected. The definition file with the error will be deleted and reloaded the next time you access the schema.

1519 **Definition file format problem with character menus**
An error was encountered with the definition of a character menu. A menu definition that tries to jump more than one level in the menu hierarchy is present in the file. So, the format of the definition file is not what is expected. The definition file with the error will be deleted and reloaded the next time you access the schema.

1520 **Definition file format problem: invalid schema/active link end**
The end clause of a schema or active link definition was not found where expected in the definition file. So, the format of the definition file is not what is expected. The definition file with the error will be deleted and reloaded the next time you access the schema.

1521 **Definition file format problem: begin active link**
The only information expected after the end clause of a schema is the definition of active links or of character menus. When processing the file contents after the end clause, an entry was found that was not the start of an active link and also not a character menu. So, the format of the definition file is not what is expected. The definition file with the error will be deleted and reloaded the next time you access the schema.

1522 **Definition file format problem: active link**
An invalid clause was encountered in an active link definition in the definition file. So, the format of the definition file is not what is expected. The definition file with the error will be deleted and reloaded the next time you access the schema.

1524 **Unrecognized selection value**
The specified selection value is not a legal selection value for the field. Check the definition for the field to see what the legal values are. Remember, capitalization counts when checking for the legal selection values.

1525 **Total number of lines (between margins) less than minimum of five**
The total number of lines on the page between the top and bottom margins is less than the minimum of 5 lines. A report requires space for at least 5 lines of text on the page. The space available for a page is the total number of lines allowed on the page less the size of the top and bottom margins. You must increase the page size or decrease the size of the top or bottom margin so that the total space available is at least 5 lines.

1526 **Total number of characters per line (between margins) less than minimum of 40**
The total number of spaces on the page between the right and left margins is less than the minimum of 40 characters. A report requires space for at least 40 characters of text on a single line. The space available for a line is the total number of characters allowed on the line less the size of the right and left margins. You must increase the line length or decrease the size of the right or left margin so that the total space available is at least 40 characters.

1527 **Total number of characters per line (including margins) is greater than maximum of 4096**
The total number of spaces on the page is greater than the maximum of 4096 characters. A report cannot have lines with over 4096 characters of text. You must decrease the line length so that the total space available is no more than 4096 characters.

1528 **Column headers will not fit within the space defined between top and bottom margins — total number of lines increased to the following value**
The number of lines that remain between the top and bottom margin on the page are insufficient to allow the column headers to be printed. The number of lines per page has been increased to the indicated value to provide enough space for the column headers and five lines of data.

1529 **Status field is not accessible — cannot display Status History**
No reference to a Status field can be found for this schema. Accordingly, you cannot display Status History information. This is an unexpected error, contact Remedy Technical Support for assistance.

1530 **Update of custom operation failed**
The update of the custom operation failed. There should be an associated error message with the details of the update failure. The problem is most likely a failure with opening or writing to the file holding the custom operation.

1531 **X and/or Y coordinates are out of range**
The X and/or Y coordinate value specified is out of the legal range for the coordinate. The X coordinate must be between 0 and 1500 inclusive and the Y coordinate between 0 and 3000 inclusive. Change the value of the X and Y parameters.

1533 **Problem formatting diary entry**
A problem was encountered while formatting the diary text for a field. An associated error message should contain details of the failure.

1534 **Must specify a user name**
You must specify a user name to log in. You can dismiss this window without changing the login information for the current user. If you want to change the login information, you must specify a user name.

1535 **Problem querying servers**
An error was encountered while trying to get a list of the schemas that are available from each of the connected servers. An associated error message should contain the details of the failure.

1536 **Please supply a name for your macro/custom report**
You are requesting that a macro or custom report be saved. However, you have not specified a name for the operation. If you are saving a new operation, specify a new name in the name field. If you are saving an updated macro or custom report under an existing name, specify the name you are updating and select Continue when the prompt warning of duplicate names appears.

1539 **Cannot specify a Count operation with a column layout without specifying a field name**
You have requested a count statistic with a column layout without specifying a fieldname to count on. The fieldname is used to determine which column to display the result under in a column style statistic result. You must specify the fieldname to identify which column the result will be printed under.

1540 **Create of macro/custom report failed — file system problems**
An error was encountered while trying to create a macro or custom report. The problem was with the file system not being able to create or write to the file holding the definition of the operation. An associated error message should contain details of the failure.

1543 **A field name is required for all operations except Count**
All of the statistics operations (except for count) require a fieldname. This name specifies the field the operation will be performed on. You must specify the fieldname (or arithmetic operation) on which the operation will be performed.

1544 **Value specified for field name not numeric or not a field**
The value specified for the field name must be a field defined for the schema, a numeric value, or one of the numeric or date keywords. These are the only types of definitions allowed in the field name for a statistical operation. Check spelling to insure things are correct and update the field name entry to be a legal operation.

1545 **You have entered an improperly formatted value for a real field**
The indicated value was entered as a value for a field with a datatype of real. The value is not a legal real value. Change the value to a legal real value and redo the operation.

1546 **You have entered a non-digit character for a numeric field**
A numeric field contains a non-digit value. You can only specify digits for integer fields. Change the value to a legal integer value and redo the operation.

1547 **You have entered a value for a numeric field that is either smaller than the minimum size allowed or larger than the maximum size allowed**
The value you specified for the numeric field is either smaller than the minimum size or larger than the maximum size. Check the field properties for the schema in question through the Admin Tool to confirm the size limits for the field.

1549 **Modify All operation failed during operation on entry with ID**
An error was encountered during a modify all operation. The indicated ID is the entry where the failure was encountered. The update was performed for all entries up to the specified ID (in the sort order) and all items after the entry with the specified ID are unchanged. Details of the error are in an associated error message. Correct the error and redo the operation.

1550 **No macros are defined**
There are no macros defined. Accordingly, you cannot run or edit a macro. You must first define one or more macros before you can open the Select Macro or Edit Macros windows.

1553 **Cannot locate your selected command**
The requested user command cannot be located. Usually, this is because the command has been deleted. If you are selecting the command interactively, the command has probably been deleted or moved by another user since you started the program. If you are selecting the command from a macro, the command has probably been deleted since the macro was recorded.

1555 **Enter a command name**
You are requesting that a user command be saved. However, you have not specified a name for the operation. If you are saving a new command, specify a new name in the name field. If you are saving an updated command under an existing name, specify the name you are updating and then select Continue when the prompt warning of duplicate names is issued.

1557 **Enter a command string to execute**
You are requesting that a user command be saved. However, you have not specified a command to be performed for the operation. Specify the command you want to be executed when this user command is performed and then save the user command.

1558 **Create of user command failed -- file system problem**
An error was encountered while trying to create a user command. The problem was with the file system not being able to create or write to the file holding the definition of the operation. An associated error message should contain details of the failure.

1559 **Problem with macro/custom report**
An error was encountered while trying to perform the operation specified in the macro or custom report. There are several reasons you may get this error:

- The macro or custom report does not exist. It may have been deleted or moved to a new location. Or, a macro may run another macro as one of the operations it performs and that embedded macro does not exist.
- The format of the file holding the macro or custom report does not match the expected format. This could be anything from an missing end statement to bad formatting of one of the command lines. The macro and custom report files are not editable.

Generally, when you receive this error, the only way to proceed is to re-record the macro or custom report operation.

1562 **Second part of report operation missing or invalid**
The report operation in a macro consists of several commands. The second part of the command that provides the destination for the report is missing or is not recognized. This is a specific case of the “Problem with a macro/custom report” error (1559).

1563 **Enter a directory to store the command in**
You are requesting that a user command be saved. However, you have not specified a directory in which to store the operation. If you are saving a new operation, specify a new name in the name field. Specify the directory you want this user command definition to be stored in.

1565 **Second part of statistics operation missing or invalid**
The statistics operation in a macro consists of several commands. The second part of the command that provides the destination for the statistics result is missing or is not recognized. This is a specific case of error #1559, “Problem with a macro/custom report.”

1566 **No custom report formats are defined**
There are no custom reports defined. Accordingly, you cannot manage a custom report. You must first define one or more custom report before you can open the Manage Custom Reports window.

1567 **Unrecognized operation while loading a custom report format**
An unrecognized operation was detected in the custom report definition. A custom report definition can contain only operations related to a custom report. This error is usually caused by trying to rename a macro as a custom report when the macro has more than just a custom report definition in it.

1569 **Empty macro definition**
You are trying to save a macro that has no commands defined for it. You cannot create a macro that does not perform any operation. Check to make sure the correct options are set on the Stop Recording window. If they are, you have not performed any operations since starting recording. You must perform the operations you want to record before saving the macro.

1572 **Cannot create new item**
An error was encountered while trying to create the new definition on the Customize View window. An associated error message should provide more details about the error. Usually, the problem is a lack of system resources.

1574 **Filename is longer than maximum allowed**
The filename specified is too long. The maximum size for a filename is 255 characters including the directory path and the name of the file. The file specified for this operation is longer than this maximum. You must define a filename that fits within the size limit.

1579 **Cannot use selection value name in Status History — you do not have access to Status**
You do not have access to the Status field for this schema. Accordingly, you cannot use a status selection value name as the middle portion of a Status History reference. In order to reference a specific Status History value for this schema, you will have to use the 0-based selection index for the selection value you are interested in.

1580 **Missing closing quote on a character string/name**
A fieldname or character string has an opening quote as required, but there is no corresponding closing quote at the end of the string. You must supply the ending quote. Remember, if the name or string contains a quote that is the same type of quote around the value, you must double the embedded quote.

1581 **Unexpected character at this location in the query line**
A parsing error was detected in the query line. This message indicates that an error was encountered, and shows the portion of the string containing the error with a caret marking the location of the error. The error is usually at or just before the position that is marked. You must correct the error and re-issue the query.

1582 **Expected a logical operation at this point**
The only legal operation at this point in a query line is a logical operator (AND, OR, or NOT). You must correct the format for the line and re-issue the query.

1583 **Expected a relational operation at this point**
The only legal operation at this point in a query line is a relational operator (=, !=, <, <=, >, >=, or LIKE). You must correct the format for the line and re-issue the query.

1584 **Expected a field or value at this point**
At this point in a query line, a field reference or value is expected. You must correct the format for the line and re-issue the query.

1585 **Too many nested levels of parentheses in command**
There are too many open parentheses (maximum of 64 open parentheses active in the query line) at this point in the query line. The query operation has become too complex. You must have fewer levels of nested operations within the query operation. You must correct the format for the line and re-issue the query.

1586 **Expected a closing parenthesis at this point**
A closing parenthesis to match an open parenthesis specified in this command was expected at this point. There must be a balanced number of parentheses in the command. You must correct the format for the line and re-issue the query.

1587 **Unknown field referenced in query line**
The field referenced in the query line is not a recognized field on the current schema. This error is often caused by one of the following:

- Omitting the single quotes around a field reference that contains spaces or other special characters.
- Using single quotes around a value when double quotes should be used.
- Omitting double quotes from around a value.
- An invalid field label was specified.

You must correct the format for the line and re-issue the query.

1588 **Value specified for selection not one of defined values for this field**
The value specified for a selection field is not one of the defined selection values for the field. Check the spelling and capitalization of the value specified and be sure it matches one of the legal selection values. You must correct the format for the line and re-issue the query.

1589 **Format for status history reference is invalid**
The format for a status history reference is incorrect. A reference must be the name or ID of the Status History field followed by a period followed by the name or index (0-based) of the status selection value followed by a period followed by the keyword or index of a user or time reference (for example, Status-History.Fixed.TIME or 15.2.1). You must correct the format for the line and re-issue the query.

1590 **Format of time value is not recognized**
The format of a time value is not recognized. You can omit the time portion of a timestamp and just include the date or omit the date and just include the time. The portion omitted will default to an appropriate value. However, the format of the portion of time that is specified must match the rules for timestamps. You must correct the format for the line and re-issue the query.

1592 **Cannot translate the group name in the Group list field**
A group name specified in the group list field (field with ID 104) cannot be translated. This means that the name is not recognized as one of the groups defined for the system. Check the spelling, capitalization, and spacing of the name to insure it is one of the legal group names.

1600 **Overflow while expanding active link process (maximum expanded command is 4096 bytes)**
Overflow while expanding the command line for an active link. This could be the command line for a Run Process action or for a `$PROCESS$` operation in a Set Fields action. Either way, the command line is over the maximum of 4096 characters after expansion. Check the definition to insure the correct values are being specified.

1601 **Overflow while expanding active link macro parameter (maximum expanded parameter is 4096 bytes)**
Overflow while substituting a parameter value for a macro parameter in a Run Macro action for an active link. When a parameter contains data that expands, the maximum expansion of the values is 4096 characters. Revise the parameter values that are passed to be less than 4096 characters.

1602 **No item matches active link conditions — this operation has been defined so that no match generates an error**
An active link action was extracting data from another schema or another table in the database, and found no rows that matched the qualification criteria. The Administrator configured the action to return an error if no matches were found.

1603 **Set fields active link running a process failed**
The process that was run to get a value for a field has failed. There should be an associated error message with details about the failure. Correct the situation causing the failure and perform the operation again.

1604 **Active link trying to set non-existent menu — resetting to the default menu**
An active link has specified a new character menu for a field. However, the specified character menu is not defined. The character menu for the field is being reset to the default menu for the field. Correct the active link to refer to an existing character menu or create the character menu needed by this active link.

1605 **Active link trying to set non-existent field**
An active link has specified a new character menu for a field that does not exist. Correct the active link to refer to an existing field for the schema or remove the active link.

1606 **No user commands are defined**
There are no user commands defined. Accordingly, you cannot run or edit a user command. You must first define one or more user commands before you can open the Select User Commands window.

1607 **No admin commands are defined**
There are no administrator commands defined. Accordingly, you cannot run an administrator command. Your administrator must first define and give you access to one or more administrator commands before you can open the Select Admin Command window.

1608 **Value exceeded report maximum length**
A value exceeded the maximum size of a value that is allowed within a report. The value will overflow the internal buffers used for reporting and so cannot be included in the report. Specify a report that excludes the long field and redo the report.

1609 **The statistic operation is too complex — it references over 50 distinct fields**
You have defined a set of statistical operations for a report that includes over 50 distinct fields in the reporting criteria. The reporting system supports a maximum of 50 unique fields referenced in statistical operations. You must either simplify the statistics you are gathering or split the report into several pieces, each of which references 50 or fewer fields in the statistical operations.

1610 **You must set the environment variable ARHELP to point to the help directory. This is usually the directory named help under the AR System install directory.**
In order to use the on-line help system under the Motif environment, you must set the environment variable ARHELP to point to the directory containing the help files for the AR System. As noted, this is usually the help directory under the AR System installation directory.

1611 **Multiple entries match active link conditions — this operation has been defined so that multiple matches generate an error**
An active link action was extracting data from another schema or another table in the database, and encountered multiple rows that matched the qualification criteria. The Administrator configured the action to return an error if multiple matches were found.

1800	**Internal error — unable to create schema info**
1801	**Unable to connect to any servers**
1802	**Cannot create directory <directory name>**
1803	**Can't open file <file name>**
1804	**Unknown error code <error code> encountered**
1805	**System out of memory, executable file was corrupt, or relocation was invalid**
1806	**Executable not found**
1807	**Path not found**
1808	**Insufficient memory to start application**
1809	**Invalid executable file format**
1810	**Incorrect version of Windows software**
1811	**Sharing or network protection error**
1812	**Application designed for different operating system**
1813	**Application developed for older version of Windows software**
1814	**Attempted to load second instance of application**
1815	**Attempted to load compressed executable**
1816	**Application designed for MS-DOS 4.0**
1817	**Unknown executable format**
1818	**Invalid dynamic-link library**
1819	**Application requires MS-Window 32 bit extensions**
1820	**Unknown error — error code = <error code>**
1821	**WinExec failed for <action type>**
1822	**Action Request Notifier Error**
1823	**Failed to display all or some of the notification messages**
1824	**Action Request System — error**
1825	**Unable to load Submit schema**
1826	**Unable to load Query schema**
1827	**Unable to load Customize Default schema**

1828	**Unable to load Customize view schema**
1829	**Internal error — invalid window description**
1830	**Internal error — invalid window description**
1831	**Failed to create the dialog**
1832	**Memory failure — cannot initialize the current statistics information**
1833	**Invalid field name — re-attempt the operation**
1834	**Failed to create the AR home directory <directory name>**
1835	**Internal Error (1)**
1836	**Internal Error (2)**
1837	**Failed to create memory**
1838	**Internal Error — unable to initialize user information**
1839	**Internal Error — unable to create schema info**
1840	**The X location and width of the symbol is greater than 1500**
1841	**The Y location and height of the symbol is greater than 3000**
1842	**Failed to display the report**
1843	**Failed to get printer information**
1844	**Report to file failed**
1845	**Unable to get query list 2 window description**
1846	**Unable to build query list**
1847	**Failed to create the user home directory <directory name>**
1848	**The user home directory is missing from ARuser section in win.ini file**
1849	**Not enough memory to initialize font**
1850	**Not enough memory to initialize all fonts**
1851	**Error initializing 3D controls**
1852	**Action Request requires enhanced mode**
1853	**The working directory should be the same as the program path in File/Properties**
1854	**Failed to initialize the system globals**

1855	**Failed to initialize the user information**
1856	**Unable to register window class**
1857	**Unable to register submit window class**
1858	**Unable to register query window class**
1859	**Unable to register child window class**
1860	**Unable to register queryList window class**
1861	**Unable to register report window class**
1862	**Unable to register custom windows class**
1863	**Unable to register customize view class**
1864	**Unable to register customize default class**
1865	**Unable to register text viewer window class**
1866	**Unable to register text view class**
1867	**Unable to register Dialog2 class**
1868	**Unable to create frame**
1869	**Unable to initialize APIs**
1870	**Unable to load the menu accelerators**
1871	**Failed to initialize DDE**
1872	**Internal Error — apiQueryDirectory**
1873	**Internal Error — apiQueryServers**
1874	**Internal Error — apiQueryLicenseCheckup**
1875	**Internal Error — Unable to create schema info**
1876	**Internal Error — LoadIniFile**
1877	**Unable to load Submit schema: <schema name>**
1878	**Unable to load query schema: <schema name>**
1879	**Failed to connect to application <DDE application name> using <specified DDE path> path**
1880	**Invalid DDE action specified**
1881	**Set fields active link running a process thru DDE failed**

1882	**The DDE application name is not defined in dde.ini file**
1883	**The format for the application section in dde.ini is invalid — you can only specify CSV or TAB for format**
1884	**<item> item is missing from application section <section> in dde.ini**
1885	**Memory allocation failure during DDE process**
1886	**Error in reading the GetDetails Information for list item number <item>**
1887	**Grid width and height must be between 2 and 128**
1888	**Blanks (and space(s)) are invalid in a view name**

Windows Client Frame Errors

1925	**Failed to create the window**
1926	**Unable to initialize frame**
1927	**Unable to initialize frame client**

Windows Client Symbol Errors

1950	**Error loading menu**
1951	**Failure trying to expand character menu**
1952	**Unable to load menu**
1953	**Error group information**
1954	**Failure loading group information**
1955	**Error creating a menu — menu too large**
1956	**Error** An associated error message will appear, based upon the error condition.

1957	**Unable to write to file: <file name>**
1958	**Unable to read file <file name>**
1959	**Unable to create work buffer for file: <file name>**
1960	**Can not write file: <file name> to disk**
1961	**You are trying to access a menu with more than <# of entries> entries — the menu will be truncated**
1962	**Error creating menu — out of resources**
1963	**Unable to load help**

Administrator Tool Messages

The following are error messages, and their descriptions, specific to the Action Request System Administrator Tool.

Fatal Errors

2001 **Cannot allocate memory**
The system encountered an error during a call to allocate memory. Generally, this error occurs when there are too many processes running or some processes have grown to occupy most or all of the available memory on your client machine. You can recover that memory by shutting down unneeded processes. In addition, restarting processes that have been running for a while will help by recovering any space those applications have leaked over time

2002 **Cannot read the configuration file — ARHOME environment variable may be set incorrectly**
The UNIX configuration file (`config`) is either missing or the permission settings are such that is cannot be accessed by you. Make sure that ARHOME is correctly set and that you can read and write to the config file, then restart the tool

2003 **Cannot connect to the X server**
The `aradmin` program (the Administrator Tool) on UNIX is an X program. It requires that an X windowing system be running to allow the program to operate. Currently, there is not a window system running in your environment. You need to start a windowing system and then restart the `aradmin` program.

2004 **Cannot initialize the AR System**
Failure during a call to initialize the AR System client environment. There should be an associated error message with details about the failure. Correct the problem reported and restart the tool.

2005 **No servers are currently accessible**
None of the servers to which you specified the Admin Tool should connect are currently accessible. There should be associated error messages that provide information about why the tool could not connect. Retry the operation once the issues have been resolved.

2006 **Failure while retrieving entries from the server directory file**
An error was encountered while retrieving entries from the server directory file. The error may have been caused by an inability to allocate memory to hold the list of servers encountered or by an inability to find or open the directory file (`/etc/ar` for UNIX, `\<ar_home_dir>\ar` for Windows).

2007 **Cannot read data file**
The server could not open the data file associated with the selected Administrator schema. This file is located in the database directory referenced by the `Server-directory:` setting in the `/etc/ar.conf` file.

Check that the directory setting is correct. If it is correct, look in that directory for the data file. An associated error message explains why the file could not be opened. If an error message is not present, restore the file from a backup. If it is present, check the permissions on the file. Make sure the user running the `arserverd` process has read and write access to the file. Update ownership or permissions as needed.

2008 **Invalid command line options**
The specified command line argument(s) is not a recognized argument for this program. Check the definition of the program for information about the valid command line arguments. The program will not execute with invalid arguments specified.

2009 **No servers are specified on the command line or in the AR System directory file**
If you are on UNIX, and used the `-x` command line option to identify one or more servers, the system could not connect to any of the specified servers. The Admin Tool cannot start without a server to connect to.

If you did not use the `-x` command line option, or are using Windows, the AR System directory file is either empty or contains references to servers that are not currently accessible.

Warning Messages

Note – Many of the warning messages provided with the Administrator Tool are confirmations of database updates, such as changes and deletions. Messages such as those ending in "...will be deleted" are listed in this section but are presumed to be self-explanatory.

2100 **You have specified a field ID within the reserved range**
You are attempting to assign an ID number to a schema field, but that field number is already within the range of reserved fields (100 to 536870911) in the AR System. It is permissible to create a field in this range, but be aware that the field may have a special meaning. If you are creating this field to have the special meaning, ignore this message and proceed. If you are not expecting to create a specific reserved field, you should choose an ID outside of the reserved range (greater than or equal to 536870912).

If you are running the Admin Tool, leaving the field ID blank automatically generates an available ID outside the reserved range.

2101 **Your filter definition and all associated actions will be deleted**
You are deleting a filter. A delete operation removes the definition and the workflow associated with the definition. If you proceed, the definition will be removed. If you cancel, the operation will be terminated and the definition will be retained.

2102 **No structures are in the import file**
You specified a file to be used during an import operation. When trying to load this file, the tool did not find any AR System structure definitions in the file. This means that there is nothing that can be imported. Check that you have specified the correct name for the file you are trying to import.

The import operation in the Admin Tool is used for structure definitions only. If you are trying to import data, use the Import Tool, `arimport`.

2103 **Incorrect parameter specification — check field name spelling**
When specifying a field reference using the field name, the system could not find a field with the specified name for the current schema. This error is generally a result of misspelling the field name in the reference. Check and correct the spelling and check that the field really exists for the target schema.

2104 **You have not saved changes on this screen — they will be lost if you continue**
You have made one or more changes on the current window since changes have been applied. A request has just been made to close or dismiss the window. If the window is dismissed, all changes since the last Apply will be lost. Select Cancel to cancel the dismiss and retain the window and its information.

2105 **Your administrator command definition will be deleted**
You are deleting an administrator command. A delete operation removes the definition. If you proceed, the definition will be removed. If you cancel, the operation will be terminated and the definition will be retained.

2107 **Your schema definition and all associated data will be deleted**
You are deleting a schema. A delete operation removes the definition, the workflow associated with the definition (such as filters and active links), and all the data associated with the definition. If you proceed, the definition will be removed. If you cancel, the operation will be terminated and the definition will be retained.

2109 **Your active link definition and all associated actions will be deleted**
You are deleting an active link. A delete operation removes the definition, as well as the workflow associated with the definition. If you proceed, the definition will be removed. If you cancel, the operation will be terminated and the definition will be retained.

2112 **Language defined by LANG environment variable not recognized — using default on server**
The language defined in the LANG environment variable is not recognized by the AR System. The default language of the server will be used instead.

2114 **The following field names are duplicated in your schema**
The field name(s) identified in the message are used for multiple fields on the schema. Fields are uniquely identified by field ID, so duplicate names are allowed. However, it can be confusing to have fields with duplicate names. You should consider changing one of the names if there is not a good reason for the duplication.

2115 **Changes on the following screens will be lost if you continue**
You have made one or more changes on a window that is a child of the current window, since changes have been applied. A request has just been made to close or dismiss the parent window. If the window is dismissed, all changed since the last apply will be lost. Select Cancel to cancel the dismiss and retain the current window, its children, and their information.

2117 **Your menu definition will be deleted**
You are deleting a character menu. A delete operation removes the definition. If you proceed, the definition will be removed. If you cancel, the operation will be terminated and the menu definition will be retained.

2119 **The following fields (including data) and/or active links will be deleted**
You have requested that one or more fields or active links be deleted. The fields and the active links affected are listed as part of the message. Deleting fields will delete all the associated data for the fields, and involves restructuring the table in the database. Deleting active links will remove the workflow associated with the active link. Proceeding with the delete continues the operation. Cancelling will stop the delete operation from being performed.

2120 **Additional errors were truncated**
The operation encountered a number of errors. There were too many to fit in a single dialog box. The most critical errors are displayed in the current dialog. Correct those errors and repeat the operation to see if the other errors remain.

2121 **Your filter action will be deleted**
You are deleting a filter action. A delete operation removes the action definition. If you proceed, the action definition will be removed. If you cancel, the operation will be terminated and the action definition will be retained.

2122 **Your active link action will be deleted**
You are deleting an active link action. A delete operation removes the action definition. If you proceed, the action definition will be removed. If you cancel, the operation will be terminated and the action definition will be retained.

2123 **Your schema view will be deleted**
You are deleting an administrator view of a schema. A delete operation removes the view definition. If existing users are using this view, they will reset to the default view the next time they connect to the system. If you proceed, the view will be removed. If you cancel, the operation will be terminated and the view will be retained.

2124 **Your schema view name is not unique**
The name of an administrator view must be unique for the schema. There is another view that exists, using the same name. You must choose a unique name for the view.

2126 **You currently have an escalation time specified**
You are changing the timing setting for an escalation from calendar to interval. However, there is currently a Calendar screen open on the system. When using an interval time setting, the calendar screen is not appropriate. This prompt allows you to cancel the operation or to specify that the open window be closed.

2127 **This operation (FTS re-index) could take a long time**
You selected the FTS re-index operation. This operation can take a long time if there are many fields that are indexed, or if there is a lot of data in the system. FTS search capability will be disabled while the operation is in progress. Additionally, performance of the system may suffer due to the load being placed on it by the indexing operation. It is strongly recommended that any re-index operation be performed during off hours.

2128 **Your escalation action will be deleted**
You are deleting an escalation action. A delete operation removes the action definition. If you proceed, the action definition will be removed. If you cancel, the operation will be terminated and the action definition will be retained.

2129 **Your escalation definition and all associated actions will be deleted**
You are deleting an escalation. A delete operation removes the definition, as well as the workflow associated with it. If you proceed, the definition will be removed. If you cancel, the operation will be terminated and the definition will be retained.

2130 **You are logged in as a subadministrator — access to some structures and functions has been disabled**
You are logging into the system as a user who is a subadministrator. A user who is a subadministrator does not have access to all of the functions on the tool. If you find that you are not allowed to perform a specific operation, it is probably because you do not have sufficient permissions. You can log in as an administrator to get full access.

2131 **Incompatible data types in qualification line**
The data types of a pair of values in a qualification line are not compatible. Check the qualification line and ensure that operations are performed only between items with compatible types.

2132 **Full text index operations will be started**
You have activated the Full Text Search subsystem of the AR System. Any items that are pending indexing will begin indexing immediately.

2133 **Full text index operations will be shut down**
You are deactivating the Full Text Search subsystem of the AR System. All operations that would require updating the FTS index will be queued for performing when the system is activated again.

2134 **You must be a member of the Administrator or Subadministrator group with a fixed license to use this tool**
Administrative functions within the AR System require a user who is a member of the Administrator group (with full functionality) or Subadministrator group (with limited functionality). In addition, the user must be assigned a fixed write license. The current user attempting to obtain access does not meet these criteria.

2135 **The selected distributed mapping will be deleted**
You are deleting an distributed mapping. A delete operation removes the mapping definition. If you proceed, the definition will be removed. If you cancel, the operation will be terminated and the definition will be retained.

2136 **The selected pending mappings will be deleted**
You have selected one or more pending mapping definitions to be deleted. A delete operation will remove them from the set of operations to be performed. The distributed operation that was initiated against these items will be removed. If you cancel, these items will be retained.

2137 **Changes on the mapping fields screen will be lost if you continue**
You have made one or more changes on the current window since changes have been applied. A request has just been made to close or dismiss the window. If the window is dismissed, all changes since the last Apply will be lost. Select Cancel to cancel the dismiss and retain the window and its information.

2138 **You are attempting to delete a Distributed Server schema or field — do you wish to continue?**
The schema you are requesting to be deleted is one of the special distributed server option schemas. Deleting the schema may affect the functionality of the Distributed Server Option. When you restart the system, the server automatically recreates the schema.

Or, if you are deleting a field, the field you are deleting is one of the fields that make the current schema a Distributed Server Option schema. Deleting this field will make this schema unavailable as a Distributed Server Option schema. When the system is restarted, a new schema that contains all the distributed fields will be created.

Error Messages

2200 **Cannot allocate memory**
The system encountered an error during a call to allocate memory. Generally, this error occurs when there are too many processes running or some processes have grown to occupy more, or all, of the available memory on your client machine. You can recover that memory by shutting down unneeded processes. Additionally, restarting processes that have been running for a while will help by recovering any space those applications have leaked over time.

2202 **Only integer can use numeric text type**
While defining properties for a field, you attempted to assign the field type "Numeric Text" to a field other than an integer field. Only fields with the data type "Integer" may be of numeric text type.

2203 **Only selection type can use checkbox**
While defining properties for a field, you attempted to put check boxes on a field other than a selection field. Only fields with the data type "Selection" may use check boxes.

2214 **Cannot open export file**
The file specified to receive the exported definitions cannot be opened by the tool. This could be due to either an access problem or a non-existent directory. Check the associated error message for details. Retry the operation once the error has been corrected.

2219 **Schema definition problem: bad field specification**
A problem was encountered while trying to build the GUI structure to represent a field on a screen. There should be an associated error message with more details.

2228 **Cannot open configuration file**
An error was encountered while attempting to open your configuration file. There will be an associated message that contains details about the error. Resolve the error reported and repeat the operation.

2230 **Update of custom operation failed — duplicate name?**
You attempted to create a custom-made schema, filter, escalation or distributed mapping, but the submit operation failed. Most likely, this is due to a duplicate name occurrence between your operation and an AR System-supplied operation.

2231 **X and/or Y coordinates are out of range**
The X and/or Y coordinates you specified for the layout of a schema field are out of the valid range. The range for the X coordinate is 0 to 1500. The range for the Y coordinate is 0 to 3000. Correct the coordinate to be in range.

2232 **Enter a schema name**
You must specify the name of a schema to complete the specifications for the desired window. Enter a schema name and reselect Apply.

2234 **Enter a user name**
You must specify the name of a user in order to log in. Enter a name and reselect Apply.

2235 **Problem reading server directory**
There was a problem reading the server directory. Check the file `/etc/ar` (for UNIX) or the Login Information window (Windows) to see if the correct server, or any, are specified. Specify the desired server and reattempt the operation.

2236 **Problem querying servers**
An error was encountered while trying to retrieve the list of schemas that are available to the new user. The system could not connect to the servers. There should be an associated message with more details.

2241 **No selection made — one is required**
In order to perform an import or export operation, you must select one or more items to be imported or exported. These can include selecting “all” items, but something must be selected.

2243 **Cannot open the specified file**
Error while attempting to open a file. There should be an associated error message with additional information about the failure. Correct the error and retry the operation.

2255 **Enter a command name**
You have not specified a name, which is required, for the administrator command you are creating. Enter a name and reselect Apply.

2257 **Enter a command string to execute**
You have not specified a command string, which is required, to associate with the administrator command you are creating. Enter a command string and reselect Apply.

2269 **Select an item**
No field or active link is currently selected on the window. Therefore, you cannot select the delete operation. If you want to delete a field or active link, select the item and then select Delete.

2279 **Problem deleting selected item from list during cut operation**
An internal error occurred while attempting to remove an item from an internal list. Exit the tool and restart.

2281 **No data entered at selected menu level**
There is no menu definition at the selected level in the menu. In general, you should not receive this message. Save any work on the current window and exit the window. The error message should disappear when you reopen the character menu definition.

2283 **You must enter a label before selecting Insert or Modify**
You must enter a label for a menu item that you are creating prior to selecting Insert or Modify. Enter a label and reselect the desired operation.

2284 **No data entered at previous menu level**
There is no menu definition at the previous level in the menu. In general, you should not receive this message. If you do, save any work on the current window and exit the window. The error message should be gone when you reopen the character menu definition.

2285 **Enter a filter name**
You have not entered a name, which is required, for the filter you are creating. Enter a name and reselect Apply.

2286 **The message number is invalid**
When creating a message type action, the message number is outside of the allowed range. User messages have message numbers of 10000 or greater. Correct the message number and reselect Apply.

2287 **You must select a schema**
You have not specified a schema for the structure you are creating. You must specify the schema to which the structure is attached. Select a schema and reselect Apply.

2288 **You must select at least one operation**
You have not specified an operation for the filter or escalation to execute. You must specify one or more operation. Select an operation and reselect Apply.

2290 **Missing close quote on a character string/name**
When parsing a line, an open quote was encountered, but no corresponding closing quote was found. Check the string for the missing quote. If a quote is contained within a string, you must double the contained quote.

2291 **Unexpected character**
When parsing a line, an unexpected character was encountered. The associated message should contain information about the position within the line where the unexpected character was encountered.

2292 **Expected a conditional operation at this point**
When parsing a line, a conditional operation was expected but not found. The message should contain information about the position within the line where the operation was expected.

2293 **Expected a relational operation at this point**
When parsing a line, a relational operation was expected but not found. The message should contain information about the position within the line where the operation was expected.

2294 **Expected a field or value at this point**
When parsing a line, a field or value reference was expected. The message should contain information about the position within the line where the field or value was expected.

2295 **Too many nested levels of parenthesis in command**
When parsing a line, the system supports a maximum of 64 levels of nested parentheses. The string being parsed has more than 64 levels of nested parentheses.

2296 **Expected a closing parenthesis at this point**
When parsing a line, a closing parenthesis was expected. The associated message should contain information about the position within the line where the parentheses was expected.

2297 **Unknown field reference**
When parsing a line, a reference to a field was encountered, but it could not be translated to any known field for the current schema. Check to ensure that you have used the correct type of quotes (for example, single quotes around a value that should include double quotes). The message should contain information about the position within the line where the field reference can be found.

2298 **Value specified for selection not one of defined values for this field**
When parsing a line, a value for a selection field that was specified was determined to not be one of the legal values for the field. The associated message should contain information about the position within the line where the selection value can be found.

2299 **You have entered too many parameters in a set fields assignment**
The function definition contains more parameters than are allowed. Check the definition of the function and enter only the appropriate parameters. The message should contain information about the position within the line where the function of the extra parameters can be found.

2300 **Format of time value is not recognized**
The format of the specified time value is not recognized. The format is controlled by the default LANG setting and can be overridden using the ARDATE environment variable.

2301 **Specify a directory and filename**
You must specify a directory and file name in order to open a file. Specify both a directory and file name, and reselect Apply.

2304 **Enter data**
There is no data entered on the current screen. Check the fields you are assigning to be sure you have specified the required information. For example, if you are on a Set Fields window, you must specify one or more fields to receive a value. If you have not specified the field to receive data, you must do so. If you do not want to specify any data, select Dismiss to skip this action.

2305 **Selection fields require one or more values**
A selection field requires that one or more values be specified. The field is not fully defined until it has one or more value.

2306 **Error during character menu delete operation**
An internal error was encountered while removing an item from the menu. In general, you should not receive this message. If you do, save any work on the current window and exit the window. The error should be gone when you reopen the character menu definition.

2308 **You have created the maximum number of filter actions allowed**
A filter can contain a maximum of 25 actions. You are already at the maximum number of actions allowed. If you need to perform additional actions, create a new filter with the same conditions and add actions there. Remember to specify an execution order that is greater than the current filter so the new actions run after the existing actions.

2309 **Resulting filename is longer than maximum allowed**
The file name specified is longer than the maximum file name supported by the system, which is up to 255 characters.

2310 **Error encountered writing to file**
An error was encountered while trying to write to a file. An associated error message should contain the details about why the write operation failed. Correct the problem and retry the operation.

2311 **You have created the maximum number of active link actions allowed**
An active link can contain a maximum of 25 actions. You are already at the maximum number of actions allowed. If you need to perform additional actions, create a new active link with the same conditions and add actions there. Remember to specify an execution order that is greater than the current active link, so the new actions run after the existing actions.

2312 **You must select a schema**
You have not specified a schema for the active link you are creating. You must specify the schema to which the active link is attached. Select a schema and reselect Apply.

2313 **Enter an active link name**
You have not specified a name for the active link you are creating. A name is required. Enter a name and reselect Apply.

2314 **Select a field for your 'Execute On' condition**
The execution condition requires that a field be selected to attach the operation of the active link to. This is required when you execute on return or menu choice. Select a field to attach to and reselect Apply.

2315 **Select an execution condition for your active link**
You have not specified when to execute the active link. You must specify one or more occasions for active link execution. Select an execution condition and reselect Apply.

2317 **You have entered a reserved group ID**

2319 **Assign line error at position <location>**
While parsing an assignment line, an error was encountered. This message contains information about the position of the error in the line.

2320 **Qualification line error at position <location>**
While parsing a qualification line, an error was encountered. This message contains information about the position of the error in the line.

2321 **You have entered an improperly formatted value for a real field**
The value entered where a real value is expected is not in legal format for a real value. Real values can include a single decimal point or can be in scientific notation. Reenter the value into one of these formats and reselect Apply.

2322 **You have entered a non-digit character for a numeric field**
An integer or real field contains a non-digit character. Integer and real fields can contain only digits (except for real values in legal scientific notation).

2323 **Unrecognized arithmetic operation**
The arithmetic operation specified is not legal in the current context.

2324 **The internal field length may not be less than zero**
The length specified by a character field must be greater than or equal to zero.

2325 **Field IDs below 100 are reserved for core fields**
You cannot create a new field with ID less than 100. Fields in this range are reserved for the core fields that are created and managed automatically by the system.

The one exception to this rule is the set of six fields that were core fields in the *initial* release of the AR System, but are no longer core fields. For compatibility, you can use those field IDs for fields with compatible definitions.

2326 **You have specified a field ID already in use**
The ID for every field must be unique. You have specified an ID that is in use by another field. Change the ID to be unique. If you do not want to have to worry about specifying the ID, and you are using the AR System Administrator tool, leave the field ID blank for the new field and one will be created for you automatically.

2328 **You do not have a known server specified in your configuration file —the tool will default to the first server specified in your directory file**
Your configuration file has registered that you were last connected to a server to which you no longer have contact. The system defaults to connecting to the first server listed in your configuration file.

2329 **There are no administrator macros defined**
There are no macros available to the administrator for creating a macro type action for an active link. Check to see if the macro you want to run is defined. The ARPATH environment variable can be used to point to alternate locations for macro definitions.

2331 **An error has occurred while formatting your diary text**
An error was encountered while trying to format the change history information for the structure. There may be a problem with the definition as stored in the database. You can change other aspects of the definition, but the change history is not available. Contact Remedy Technical Support for assistance.

2332 **One of the field names is invalid**
One or more of the names specified in the get list or index list is not a valid field name for the current schema. Check the spelling of the names to ensure that you have specified legal fields.

2334 **You must select a schema**
You have not specified a schema for the filter you are creating. You must specify the schema to which the filter is attached. Select a schema and reselect Apply.

2335 **Total width of your fields exceeds the maximum**
The total width of all the fields specified for get list fields is greater than the maximum of 128. Check the width specified foe each field and the width of the separators and adjust as needed to be within the maximum width of 128 bytes.

2336 **There are no actions defined — create at least one action**
No actions have been defined for the filter, escalation or active link. You must specify at least one action.

2337 **The field ID is too big**
The ID specified for the field is outside the legal range of field IDs. Change the value to be in the legal range. If you do not care what the ID is, and you are using the AR System Administrator tool, leave the field blank and a legal ID will be created for automatically.

2338 **Cannot change type of an existing action**
You cannot change the type of an existing action. You must delete the existing action and create a new one.

2339 **Delete failed**
An error was encountered while performing a delete operation. Check the associated message for additional information.

2340 **Too many levels in nested macro**
If a macro nests to include other macros, the maximum number of nested levels of macros is 15. The macro you are using has more than 15 levels of nested macros. You can run the macros one after another within the same macro, but they cannot be nested more than 15 levels deep.

2341 **Invalid parameter specification in the DDE assign line**
The format of the DDE assignment line that is used within a set fields operation is not valid. Check the documentation for the expected format for the DDE line and correct the line.

2342 **Invalid macro definition file format**
The macro specified is not in the correct format, and is therefore unrecognized. You must specify a valid macro definition.

2343 **Selection values must be unique**
The values specified for a selection type field must be unique. You have specified two or more values that are the same. The system cannot tell the difference between the two values if they are the same.

2345 **Cannot expand menu <menu name> for field <field name>**

2346 **Query menu not expanded**

2347 **Missing button data**
When you specify an active link to execute when a button is selected, you must specify a name and position information for the button. Supply this information and reselect Apply.

2348 **Field data type and assignment data type are not compatible**

2349 **You have entered a value in your integer field which is outside of the legal range for integers**
The value for an integer field is outside the range for a 4-byte integer value. Enter a value that is within the legal range for a 4-byte integer.

2350 **Duplicate mapping name — rename your distributed mapping**
While creating a distributed mapping, you have assigned the mapping a name that is already used by another mapping. Mappings must have unique names. Return to the Modify Distributed Mapping window and rename the mapping.

2351 **Invalid mapping definition — respecify your custom mapping**
The tool could not decode the mapping definition for the custom mapping. Either the format of this definition has been manually changed, or there is a problem within the database with the storage of definitions. You will have to recreate the custom mapping that is corrupted.

2352 **One of your mapping servers is not available or does not exist**
The server that is specified as the source or the target of the mapping is not available. This means that the system cannot retrieve the list of schemas that are present on this server for menus, nor a list of fields that are contained within a schema for a custom mapping specification. If you need to specify a custom mapping, or you need a menu of schemas, you should wait until the server is available again.

2353 **You do not have permission to perform Distributed Server operations**
You are connected to the system as a subadministrator, and you do not have access to the Distributed Mapping schema to allow definition of Distributed Mappings. You need to be an administrator, or be given sufficient access to create and modify distributed mappings.

2354 **You have not entered data for any of your fields — enter data for at least one field before pressing the Apply button**
The set fields is not defined to assign values to any fields. You must specify the assignment of one or more fields.

2355 **There is already an active link in this schema with this name: <active link name>**
There is an existing active link with the same name. The names of all active links must be unique. Change the name of the active link so that it is unique.

2356 **You have entered a value in a real number field which is outside of the valid range for real numbers**
The value in a real field is outside the range for an 8-byte real value. Enter a value that is within the legal range for an 8-byte real.

2

Distributed Server Option Messages

The following error and warning messages are specific to the AR System Distributed Server Option.

Distributed Server Option Server (arservdsd) Messages

3000 **AR System Distributed Server terminated when a signal was received by the server**

The server for the Distributed Server Option (`arservdsd`) was terminated by a signal. The number following this error denotes the signal that was received.

If the signal is 15, you should be able to restart the server and continue to work. The process was either killed accidently or on purpose by a user in your environment.

If the signal is something other than 15, or is one you sent directly to the process, contact Remedy Technical Support for assistance in determining the cause of the problem. The server most likely shut down due to a bug in the system.

3001 **AR System Distributed Server terminated — fatal error encountered**

A fatal error occurred within `arservdsd`. This message is simply a catch-all to indicate that a fatal error shut down `arservdsd`; the details of the fatal error are contained in an associated message.

3002 **Entry pending transfer or update has been pending for longer than the specified retry timeout**

An entry pending transfer or update has been in the pending state for longer than the Maximum Time to Retry interval, which is specified in the Modify Distributed Mappings schema or overridden in the distributed fields on the actual entry. If the entry has a Transfer or Update Status distributed field, the field is updated to the status “Timeout.” The entry is removed from the pending list and the operation is not performed.

3003 **Pending distributed operation for this entry cancelled due to error**

An error was encountered while trying to transfer or update an entry. If there is a Transfer or Update Status field on the entry, the field is updated to the status “Cancelled.” The details of the error are contained in an associated error message.

Distributed Server Option Errors

3100 **The AR System is not licensed for the Distributed Server option**
A license for the Distributed Server option is required to use the distributed functionality of the system. `arservdsd` cannot be run unless the system is licensed for this option. Contact your distributor for information about obtaining a Distributed Server license.

3101 **Error while opening the Distributed Server lock file**

The AR System Distributed Server (`arservdsd`) opens a lock file named `ar.lck.390601` at start-up. This file is used to prevent multiple copies of `arservdsd` from being started. An associated file system error message details the problem with the file. Correct the problem indicated by the latter message and run the server again.

3102 **Another copy of the Distributed Server is already running**
A machine can run only one instance of the Distributed Server at a time. If another Distributed Server process is running, no action is required.

If another Distributed Server process is not running, you have probably encountered a known problem with the NFS lock manager on Sun workstations — the lock manager sometimes keeps a lock running even when the process holding the lock is no longer running. If no `arservdsd` is running, delete the lock file to free the lock, then restart `arservdsd`.

3103 **Malloc failed on Distributed Server**
The system encountered an error during a call to allocate space. The failure occurred on the server machine in the Distributed Server process. Generally, this error occurs when there are too many processes running, or when certain processes occupy most or all of the available memory on your server machine. To recover the memory, shut down any unneeded processes. Additionally, you can restart processes which have been running for a long time to recover any space those processes leaked while running.

3106 **The server being accessed is not licensed for the Distributed Server Option**
The `arservtcd` process on the target server may be an older version (2.0 and earlier) which does not interact with `arservdsd`, or the target server is not licensed to use the Distributed Server Option.

3107 **No Distributed Mapping schema could be found on the server**
A Distributed Mapping schema is required for the system to support distributed operations. No schema containing all the special reserved fields indicating it is a distributed mapping schema could be found.

Load the Distributed Mapping schema and define the appropriate mappings.

3108 **Two schemas containing all the reserved distributed mapping fields encountered — delete one to continue**
Two schemas (identified in the message) have all the fields indicating they are Distributed Mapping schemas. The system cannot work correctly if there are two schemas containing mapping information. Delete one of the schemas or change it so that it is not considered a Distributed Mapping schema (remove fields in the 200 to 220 range).

3109 **No Distributed Pending schema could be found on the server**
A Distributed Pending schema is required for the system to support distributed operations. No schema containing all the special reserved fields indicating it is a Distributed Pending schema could be found.

Load the Distributed Pending schema.

3110 **Two schemas containing all the reserved distributed pending fields encountered — delete one to continue**
Two schemas (identified in the message) have all the fields indicating they are Distributed Pending schemas. The system cannot work correctly if there are two schemas containing pending information. Delete one of the schemas or change it so that it is not considered a Distributed Pending schema (remove fields in the 250 to 260 range).

3111 **From schema in mapping definition is different from source schema in the attempted mapping**
The schema defined as the From schema does not match the schema that is the source of this transfer. Typically, this error occurs when a mapping specified in a transfer operation on the current server differs from the same mapping on the original server.

3112 **From server in mapping definition is different from source server in the attempted mapping**
The server defined as the From server does not match the server that is the source of this transfer. Typically, this error occurs when a mapping specified in a transfer operation on the current server differs from the same mapping on the original server.

3113 **To schema in mapping definition is different from target schema in the attempted mapping**
The schema defined as the To schema does not match the schema that is the target of this transfer. Typically, this error occurs when a mapping specified in a transfer operation on the current server differs from the same mapping on the original server.

3114 **To server in mapping definition is different from target server in the attempted mapping**
The server defined as the To server does not match the server that is the target of this transfer. Typically, this error occurs when a mapping specified in a transfer operation on the current server differs from the same mapping on the original server.

3115 **The type assigned to a pending entry is not recognized**
A pending entry with the pending operation tag set to an unrecognized value was encountered. This error should only occur if you have manually added entries to the Distributed Pending schema, which is a system schema that should not be manipulated manually. If you made no manual entries to the Distributed Pending schema and encounter this error, contact Remedy Technical Support for assistance.

3116 **Only the master copy of an entry can be transferred**
You can only transfer the master instance of an entry. The system attempted to transfer the specified entry, but the Master Flag field on the entry is set to "No."

3117 **Update unsuccessful — From Schema or From Server field has no value**
The From Schema and From Server fields contain information about the previous copy of this entry (from where the entry was transferred). If the Master Flag is set to "Yes," the system expects a value in the From Schema and From Server fields. If you used the `ardist` program to manually change the Master Flag value, you must ensure that there are also values assigned for the From Schema and From Server fields (you can also change these using `ardist`).

3118 **Failure during an attempt to perform a distributed command**
`arserverd` received a request to record a distributed command or encountered a situation in which it attempted to automatically record one, and a failure was encountered during recording. Thus, the distributed command was not performed. The command being attempted is displayed with this message, and an associated message contains more information about the failure.

3119 **A specific mapping was specified on the entry — mapping specified is currently disabled**
A transfer was being attempted with a specific mapping defined in the To Mapping (or From Mapping for an update) field. The specified mapping is disabled, so the transfer or update cannot be performed.

3120 **The distributed operation being attempted expected additional information which is not present**
The Distributed Delete operation requires information about the item being deleted. This information is stored with the pending operation. If you encounter this message, the required additional data is missing. Without this data, the operation cannot be performed. This error should only occur if you have manually added entries to the Distributed Pending schema, which is a system schema that should not be manipulated manually. If you made no manual entries to the Distributed Pending schema and encounter this error, contact Remedy Technical Support for assistance.

3121 **Specified "Create New" as the action if duplicate entry IDs are encountered during transfer — target schema is missing the required From Entry ID field**
You attempted to transfer an entry to the target schema with ownership transferred to the new entry, creating a new entry due to ID conflict. However, the target schema does not have a From Entry ID field, which is required for this action. The From Entry ID field provides a place to store the original ID of the entry so the original can be updated when the copy changes. If you need to retain ownership on the original, pass the entry as “data only.”

3122 **Cannot specify a distributed operation during a Delete of an entry — the delete of the entry and the distributed operation cancelled**
A filter invoked a distributed process (Distributed-Transfer, Distributed-Update, Distributed-Return) during the deletion of an entry. If a delete operation is in progress, the distributed process waits for the delete to complete. Once a distributed process starts, the error is created because the entry against which the distributed process is run no longer exists. Remove or disable the filter attempting the distributed operation, or reset the filter so it does not fire on a delete.

3123 **Must map the Entry ID field to the target Entry ID field, or the From Entry ID field must be present on the target schema**
You attempted a distributed transfer operation to another schema using a custom mapping with transfer mode “data + ownership,” and one of these conditions exist:

- You did not map the Entry ID field of the source schema to the Entry ID field of the target schema.
- You did not map the Entry ID field on the source schema to a From Entry ID field on the target schema.

You must map the Entry ID field on the source schema to one of the aforementioned fields on the target schema. Correct the mapping and re-try the transfer.

3124 **Transfer with ownership requires that the target schema contain a Master Flag field**

You attempted a distributed transfer operation using a mapping to another schema with transfer mode “data + ownership,” and the target schema does not contain a Master Flag field. It is required that the target schema (identified in the error) contain a Master Flag field if ownership is being transferred.

3125 **Transfer with ownership requires that the target schema contain a From Schema field**

You attempted a distributed transfer operation using a mapping to another schema with transfer mode “data + ownership,” and the target schema does not contain a From Schema field. It is required that the target schema (identified in the error) contain a From Schema field if ownership is being transferred.

3126 **Transfer with ownership requires that the target schema contain a From Server field**

You attempted a distributed transfer operation using a mapping to another schema with transfer mode “data + ownership,” and the target schema does not contain a From Server field. It is required that the target schema (identified in the error) contain a From Server field if ownership is being transferred.

3127 **Transfer with ownership requires that source schema contain Master Flag field**

A distributed transfer operation was attempted that included a mapping to another schema with a “data + ownership” transfer. The source schema does not contain a Master Flag field. It is required that the source schema (identified in the error) contain a Master Flag field if ownership is being transferred.

Administration Program (ardist) Messages

These messages are associated with the Distributed Server administration program, `ardist`. For details about this program, including descriptions of valid command line arguments, see of the *Distributed Server Option Administrator's Guide for OSF/Motif.*

3194 **Illegal value specified for -m option — legal values are 0 (not master) and 1 (master).**
The value specified for the `-m` argument was not 0 (not master) or 1 (master), as required. The field is a selection field and requires a numeric value. The value specified was either a character or an integer other than 0 or 1. Re-issue the command, specifying a legal value for this argument.

3195 **Must specify the -e {entryID} option**
You must specify the `-e` argument to denote the ID of the entry to be modified.

3196 **Must specify the -s {schema} option**
You must specify the `-s` argument to denote the name of the schema to be modified.

3197 **Must specify the -x {server} option**
You must specify the `-x` argument to denote the name of the server containing the schema to be modified.

3198 **A value is expected for the command line option**
You included an argument with no specific value on the `ardist` command line. Reissue the command with values assigned to all arguments.

3199 **Unrecognized command line option**
The specified command line argument is not recognized by `ardist`. See Appendix B for more information about valid command line arguments. `ardist` will not execute with invalid arguments specified.

Import Tool Messages

The following error and warning messages are specific to the AR System Import Tool.

Warning Messages

4000 **Import completed successfully — <n> records imported**
The user would see this after doing an import successfully. In other words, no errors were encountered during import.

4001 **Import of <import file name> started**
This is just to let the user know when the import has begun. This message is only logged to the log file.

4002 **Only one field title in import file — ensure that you specified the import file correctly**
This is to warn the user the import file he specified has only one field. This is usually caused by an incorrect import file format or separator string specified on the Open Import File dialog.

4003 **You have not added or committed your changes to the current fallback mapping — if you continue, those changes will be lost**
Warning for dismissing the Fallback Mappings window before applying the changes.

4004 **You have not saved nor imported data with the current mappings — if you continue, the mappings will be lost**
Warning for exiting the tool without saving the modified mappings in the main window. Use the Save Mapping menu item or the Import button before exiting the tool to avoid this warning.

4005 **You have not added, or committed your changes to the current mapping — if you continue, those changes will be lost**
The user will get this warning if the current mapping has been changed but not applied when he is about to save the mappings or change which mapping is to become the current mapping. Hit the Modify or Add button to avoid this warning.

4006 **You have not saved your changes to the current mapping — if you continue, those changes will not be used for this import**
The user will get this warning if the current mapping has been changed but not applied when Import button is clicked. Hit the Modify or Add button to avoid this warning.

4007 **Are you sure you want to delete all mappings?**
Confirmation of the Delete All button in both the main and Fallback mapping windows.

4008 **Record <n>: Field <field name> truncated to <#> characters**
This message is logged to the log file when a field is truncated during import. This message is only logged to the log file.

4009 **Are you sure you want to start importing?**
Confirmation of the Import button.

4010 **Mapping <mapping name> not loaded**
Warning that the specified mapping is not loaded. There should have been earlier messages that described why this is the case.

4011 **Duplicate name for mapping — overwrite the existing mapping?**

4013 **Did not find any matching fields to add as new mappings**
Warning when the Add All button could not find any more matching schema and import fields to add as mappings.

4014 **Copy unprocessed records to the log file?**
Question when the user stops the import process before the tool has completed.

Error Messages

4102 **Invalid AR Export format file: <import file name>**
The specified import file is not in AR Export format, when the user had specified it as such.

4104 **Import completed with errors: <#> records were imported; <#> records were not**
The import has completed. The user should check the log file to see the error messages and records that didn't get imported.

4106 **Copying remaining records of <import file name> to log file**
The second part of the message after the user stopped import before the end of the import file, and has decided to copy the remaining records to the log file. The user should never see this message by itself.

4110 **Cannot log record starting at <file offset of record>**
The record starting at the specified offset cannot be read. This can be caused by not able to open or seek in the import file.

4114 **No saved mappings specified in batch mode**
The tool is running in batch mode, but the user didn't specify which mapping to use for import on the command line.

4118 **Cannot log in to any AR Server**
The tool is running in batch mode, but no servers specified on the command line or in the /etc/ar file are available.

4120 **Two mappings have been specified on the command line**
The tool is running in batch mode, but the user specified two mappings to use for import on the command line. Only one is allowed.

4122 **The -m option requires a mapping name**
The user used the -m flag on the command line, but did not supply a mapping name following the flag.

4124 **The mapping name is longer than the maximum allowed length**
The user specified a mapping name that is longer than 30 characters.

4126 **A directory may be specified only if you specify a mapping**
The user used the -d flag on the command line, but did not also specify a mapping with the -m flag.

4130 **<field name> is not an import field name, ID, or keyword**
The user used the variable syntax ($) in the mapping value, but the string enclosed by the $'s is not an import field or an import field id or a keyword.

4132 **Cannot get the status of, or cannot open, log file**
The user has specified a log filename which cannot be opened for read and write. This could be due to the permission of the log file. Check who owns the file and its permission.

4134 **A log file name is required**
The user has erased the log file name then hit Apply in the Preferences window.

4135 **Log file <path name> is a directory**
The user has specified a directory in the log file text field.

4136 **Import log file name is longer than the maximum allowed length**
The user has specified a log file name longer than 255 characters.

4137 **Log file <file name> is not a regular text file**
The user has specified an log file that is a special file type instead of a normal text file. Choose another file as the log file.

4138 **Cannot write to log file**
There was a system error during the writing of the log file. The system error is the second part of this message.

4153 **Cannot open map file for specified mapping**
The mapping file that contains the specified mapping cannot be opened. The user may have moved the file or the directory which contained the mapping.

4155 **Cannot read map file for specified mapping**
The mapping file that contains the specified mapping cannot be read. The file probably has the incorrect permissions set.

4158 **The mapping file has a syntax error**
The mapping file contains invalid syntax. This is probably caused by a user editing the mapping file manually. This is discouraged.

4172 **Record <#>: Cannot parse record in import file**
The tool could not understand this record in the import file. The tool could be out of memory.

4174 **Cannot parse import field titles in import file**
The tool could not understand the field titles in the import file. The tool could be out of memory.

4175 **Specified import file does not exist**
The user specified a non-existent file as the import file, or the user has removed the file since the import tool started.

4176 **Syntax error in the mapping string**
The tool was not able to understand the syntax in the mapping value string. Rewrite the mapping.

4177 **Specified import file is a directory**
The user has specified a directory as the import file.

4178 **Specified import file is not a regular text file**
The user has specified an import file that is a special file type instead of a normal text file.

4179 **Cannot get the status of import file**
The import file, or the directory it is in, is no longer accessible.

4180 **Specified import file is empty**
The import file is of length zero.

4182 **Specified import file has no data**
The import file contains only field titles, if that, and no data.

4184 **An import file name is required**
The user tried to close the Open Import File window without specifying an import file.

4186 **Import file name is longer than the maximum allowed length**
The specified import file name is longer than 255 characters.

4188 **The import field separator string is longer than the maximum allowed length**
The specified import field separator string is longer than 30 characters.

4190 **A field separator string is required**
For the ASCII file format, a field separator string is required for reading in the field titles.

4192 **Cannot open specified import file**
The specified import file cannot be opened due to a system error. The system error should be in the second part of this message.

4194 **Cannot seek in import file**
A seek operation cannot be completed in the import file due to a system error. The system error should be in the second part of this message.

4204 **Invalid import file record**
The specified import file contains a record that is improperly formatted.

4206 **Record <#>: <value> is not a valid value for field <field name>**
The value in the import file is not valid for the particular schema field it has been mapped to. This could be caused by an unrecognized selection when mapping to a selection schema field, or a non-digit when mapping to a numeric field.

4208 **Record <#>: Too many fields; found <# found>, expected <# expected>**
The particular record has more fields than the number of field titles.

4210 **Record <#>: Not enough fields; found <# found>, expected <#expected>**
The particular record has fewer fields than the number of field titles.

4212 **Import completed successfully: <# imported> records imported; <# truncated> records were truncated**
When the user has chosen the truncate option in the Preferences dialog, and some records have been truncated, this message will tell the user how many records have been truncated and imported.

4214 **End of <# of copied records> records**
Message printed in the log file at the end of all copied records from the import file. The user will never see this message in a dialog.

4216 **Import completed with errors: <# imported> records were imported; <# not imported> records were not; <# truncated> records were truncated**
When the user has chosen the truncate option in the Preferences dialog, and some records have been truncated, and some records were not imported due to errors, this message will tell the user how many records have been truncated and not imported.

4218 **Two directories to look for saved mappings have been specified on the command line**
Only one -d argument is allowed on the command line.

4220 **Create of mapping failed**
The mapping file could not be created. The specific error should have been already shown to the user in previous dialogs.

4222 **No mappings are defined**
The user chose the Load Mapping... menu item, but there are no mappings files in `$ARHOME/arcmds` or any of the directories on the ARPATH environment variable.

4499 **User stopped import after <# processed> records were processed, of which <# imported> were imported**
The user decided to stop the import process before it has completed. This message just lets the user know how many records were processed already and how many were imported.

Notification System Messages

The following are error messages, and their descriptions, specific to the Notification System.

Server Errors

1 **Message not in catalog — message number = <messagenum>**

An error or warning has occurred in the system and the text corresponding to that error or warning could not be found. (The tag NTERR indicates that the condition is an error while NTWARN indicates a warning.) There are several possible causes of this problem.

Most likely, the message catalog is not accessible to you. Refer to the discussion of message catalogs in Chapter 1, *Troubleshooting* for details on how to correct this problem.

If the message catalog is accessible (you are getting most error messages but not this specific one), an event has occurred for which there may not be a corresponding error message in your catalog. Check this chapter for the message. If it is not present in this document, contact your Remedy Technical Support representative and provide them with the message number and the circumstances under which the message appeared.

20 **Notification System server terminated when a signal was received by the system**

The server for the Notification Tool (`ntserverd`) was terminated by a signal. There is a number following this error which is the signal that was received.

If the signal is 15, you should be able to restart the server and continue to work. The process was either killed accidently or on purpose by a user in your environment.

If the signal is something other than 15, or is one you sent directly to the process, contact Remedy Technical Support for assistance in determining the cause of the problem. The server most likely shut down due to a bug in the system.

21 **Notification System client-server terminated when a signal was received by the system**

The client server for the Notification Tool (`ntclientd`) was terminated by a signal. There is a number following this error which is the signal that was received.

If the signal is 15, you should be able to restart the server and continue to work. The process was either killed accidently or on purpose by a user in your environment.

If the signal is something other than 15, or is one you sent directly to the process, contact Remedy Technical Support for assistance in determining the cause of the problem. The server most likely shut down due to a bug in the system.

RPC Errors

90 **Notification System server: Cannot connect to the Notification System server**

The server is inaccessible due to one of the following reasons:

- There is a connectivity problem with the network. Issue a `ping` command to the server. If there is a problem with the network connection, you need to solve the problem in order to use the Notification Tool server. Once the network connection problem is corrected, you can successfully connect to the server.
- If there is no network connectivity problem, check to make sure that the server process (`ntserverd`) is running. If not, ask your AR system administrator to start it.
- If the server is running, check the `/etc/ar` file (UNIX) or Login Information window (Windows) on your machine to verify that the server is registered as one of the servers you can access. If no entry is present in the aforementioned file/window for the desired server, add the entry to the file.

If the connection is still unsuccessful after you have eliminated the above causes, try shutting down and restarting the Notification Tool. The server may have been temporarily inaccessible.

Refer to Chapter 1, "Troubleshooting," for more information about Notification Tool connectivity problems.

91 **Notification System server: RPC call failed**

This error is generally caused by the server going down for some reason. If the server process is down (`ntserverd` is not running), check the `syslog` file on the server system to see if you can find out why it went down. To restore access to the server, restart the Notification Tool server.

92 **Notification System server: Timeout during RPC call (operation may or may not have occurred)**

A requested operation has taken longer than the timeout period (currently 25 seconds for most calls). Since some operations may take longer than the timeout period to complete (such as importing a large schema) this is not necessarily an indication of a problem. Check back in a minute or two to see if the operation has completed.

If the next operation fails or simple operations continue to generate this error, check the server process to insure it is still running and has not entered an infinite loop (check the cpu utilization on the server machine to see if the CPU utilization is steady at 100%). If the server is active and not in a loop, there

may be a backlog of operations that is causing the error. Wait a few minutes for the backup to clear before reissuing your operation. If the server is in an infinite loop, shut down the `arserverd` process and restart it.

If problems continue, try shutting down the `ntserverd` process and restarting it. If problems continue, contact Remedy Technical Support for assistance.

Errors

100 **Server name parameter to server API is missing or longer than the maximum allowed length**

The attempted operation requires that you specify a server name. If you did not specify a value for the `serverHost` parameter, do so and retry the operation.

If you did specify a value for the `serverHost` parameter, the specified value is too long. The maximum length of a server name is 64 characters (NT_MAX_SERVER_SIZE).

101 **User name parameter to server missing or longer than the maximum allowed length**

The attempted operation requires a target user be specified. If you did not specify a value for the user parameter, do so and retry the operation.

If you did specify a user name and received this message, the specified value is too long. The maximum length for a user name is 30 characters (NT_MAX_NAME_SIZE).

102 **Notify text parameter is missing or longer than the maximum allowed length**

The attempted operation requires a value to be used as the notify text. If you did not specify a value for the `notifyText` parameter, do so and retry the operation.

If you did specify a value for the `notifyText` parameter, the specified value is too long. The maximum length allowed for the notify text is 255 characters (NT_MAX_NOTIFY_SIZE).

103 **Client server parameter to server API is missing**

The attempted operation requires a value to be specified for the server that is to be registered / unregistered. Specify a value for the `clientServer` parameter and retry the operation.

104 **Client name parameter to client API is missing**
The field holding the name of the client to notify is empty. When sending a notification to a client, you must supply the name of the client to notify. Specify a value for the client host field and try the operation again.

105 **There are no servers defined in the directory file for the Notification System in the directory file**
No servers to which the Notification Tool should connect have been specified. There must be one or more servers defined in the `/etc/ar` file (on the machine on which the `ntclientd` and `notifier` processes are running). If you are starting `ntclientd` from the command line, specify one or more servers preceding each server name with the `-x` argument.

Note – Use the `-x` argument when running the `ntclientd` program, not `notifier`. A number of notifiers on a given system share the `ntclientd` program on that system. You can only specify one set of servers to connect to from a given system.

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106 **Cannot open the communication link from the Notification Tool to the client server**
A failure was detected while trying to open a connection between the notifier and the `ntclientd` process. There should be an associated error message that provides details of what caused the failure. Resolve the problem and try running the program again.

107 **Filename parameter is missing**
The attempted operation requires a value for the `filename` field. Specify a value for the `filename` parameter and retry the operation.

108 **Unrecognized value for notify code**
The value specified for the notify code is not one of the recognized values. Check the defines in the include file `nt.h` for a list of the allowed notify codes. For information about the format of the message string for each supported code, check the man page for the `NTNotificationServer(3)` definition.

110 **Client address parameter to server API is incorrect**
The parameter holding the name of the client server is NULL or empty. When registering with the server for notifications, you must supply the name of the client machine that is to receive the notifications.

111 **Protocol parameter to server API is incorrect**
The parameter indicating the protocol to be used by the Notification Tool server is not one of the permitted values (TCP or SPX).

112 **Client communications parameter to server API is incorrect**
The parameter indicating the type of communication to be used between the notification server and the client is not one of the permitted values. Check the defines in the include file `nt.h` for a list of the permitted communication mechanisms.

Notification System Client and Server Errors

200 **Notification System server: Out of memory**
The system encountered an error during a call to allocate space. The failure occurred on the server machine during processing of a call from the client. Generally, this error occurs when there are too many processes running or some processes have grown to occupy most or all of the available memory on your server machine. You can recover some memory by shutting down unneeded processes. In addition, restarting processes that have been running for a while will help by recovering any space those applications have leaked over time.

201 **Notification System server: Error during validation of the user on the server**
When connecting to the Notification Tool server, a check of the user registering encountered an error. The error details are reported in an associated message.

The most common causes for this error are unauthorized users and bad passwords.

202 **Notification System client-server: Cannot connect to Notification System server on <machine name>**
The `ntclientd` process cannot connect to the notification server indicated. This usually means that there is no notification server process running on the indicated machine.

If there should be a notification server running, start it. If the server is not a notification server, remove the NT tag from the machine in the `/etc/ar` file so that it will not be contacted in the future.

203 **Notification System client-server: Write to notify client pipe failed**
An error was encountered while writing a notification to the pipe between the `ntclientd` and `notifier` process. An associated error message provides details of the failure.

205 **Notification System client-server: No successful registration — see specific message(s) for details**

An error was encountered while the notification tool was attempting to register with the `ntclientd` process. There should be an associated error message with details of the failure.

206 **Notification System client-server: Cannot open file containing list of AR System servers**

An error was encountered while opening the directory file `/etc/ar` to get a list of the notification messages for the system. There should be an associated error message with details of the failure.

207 **Notification System client-server: Out of memory**

The system encountered an error during a call to allocate space. The failure occurred on the client machine during processing of a call from the client to the server. Generally, this error occurs when there are too many processes running or some processes have grown to occupy most or all of the available memory on your server machine. You can recover some memory by shutting down unneeded processes. In addition, restarting processes that have been running for a while will help by recovering any space those applications have leaked over time.

208 **Notification System server: Failure initiating contact with the AR System server**

Failure while trying to initialize contact with the AR System server. There should be an associated error message with details of the failure.

209 **Notification System server: Cannot open the undelivered notification log — undeliverable notifications will be lost**

An error was encountered while attempting to open the file that saves undelivered notifications. There should be an associated error message with details of the failure.

The Notification Tool will continue to run, but notifications that cannot be delivered will be lost because the file in which they are stored cannot be accessed.

210 **Notification System server: Cannot write to the undelivered notification log — undeliverable notifications will be lost**

An error was encountered while attempting to write to the file that saves undelivered notifications. There should be an associated error message with details of the failure.

The Notification Tool will continue to run, but notifications that cannot be delivered will be lost because the file in which they are stored cannot be accessed.

211 **Notification System server: Error while opening the Notification System server lock file**

The Notification Tool server (`ntserverd`) opens a lock file named `nt.lck` at start-up. These files are used to prevent multiple copies of the `ntserverd` process from being started on a single socket simultaneously. There will be an associated file system error message that details what the problem was with the file. Correct the problem indicated by that message and run the server again.

212 **Notification System server: Another copy of the server is already running**

Only one instance of the Notification Tool server can be run at one time. Check to see if there is already a server running. If so, no action is required.

If the server is not running, you have probably run into a known problem with the NFS lock manager on Sun workstations. At times, the lock manager keeps a lock running even when the process holding the lock is no longer running. If no `ntserverd` is running, free the lock by deleting the lock file. Start the `ntserverd` process once this file has been removed.

213 **Notification System client-server: Another copy of the client server is already running**

Only one instance of the Notification Tool client server can be run at one time. Check to see if there is already a server running. If so, no action is required.

If the server is not running, you have probably run into a known problem with the NFS lock manager on Sun workstations. At times, the lock manager keeps a lock running even when the process holding the lock is no longer running. If no `ntclientd` is running, free the lock by deleting the lock file. Start the `ntclientd` process once this file has been removed.

214 **Notification System server: Error communicating with Notification Tool client**
An error was encountered while delivering a notification to a client. There should be an associated error message with details of the failure. The notification is saved in the undelivered notification log for future delivery and processing continues.

215 **Notification System server: Timeout communicating with Notification Tool client**
While delivering a notification to a client, the delivery attempt timed out before the client process responded. The notification is saved in the undelivered notification log for future delivery and processing continues.

216 **Notification System client: Could not obtain the IP address of the local machine**
The Notification Tool was not able to obtain its own IP address. This is most likely caused by a misconfiguration of the TCP/IP software on the local machine. Correct the IP address configuration and retry the operation.

217 **Notification System client: Login failed — Notification server is busy or there is a network error. Check your network and log in again.**
The Notification Tool attempted to connect to the Notification Server. An error was encountered during this attempt. Either the Notification Server is busy processing other requests or there is a connectivity problem in your network. Retry the operation after a few minutes. If the failure persists, check to see whether your machine can access the machine running the Notification Server (i.e. using `ping`).

218 **Notification System client: Network error occurred while listening for connection from Notification Server — check your network**
The Notification Tool encountered a network failure while attempting to establish a socket and bind it to a port. There should be an associated error message with further details regarding the failure.

219 **Notification System client: Could not log in to any Notification server**
The Notification Tool attempted to establish a connection with the registered Notification servers. No successful connection was established. The Notification Tool is not currently connected and cannot receive any notifications.

220 **Notification System client: Network error receiving notification from Notification server — check your network and log in again**
The Notification Tool encountered a network failure while receiving a notification from the Notification server. There should be an associated error message with further details regarding the failure.

Errors

500 **All changes you have made to this window will be lost**
You have not saved the changes you made to the current window. If you select the Continue button, you will lose the changes you have made. Select Cancel to stop the operation, then select the Apply button to save the changes.

501 **Cannot open indicated log file for write access**
The log file cannot be opened for write access. There should be an associated error message explaining why you do not have write access to the file. No logging can occur until this error is cleared. You can either resolve the problem with this file, or specify a different file (one to which you have write access) as the log file.

502 **Cannot write to log file — logging temporarily disabled**
Although the system has previously been writing to the log file, an error now occurs when attempting to write to the file. The most common cause of this message is running out of disk space. There should be an associated error message containing the reason that the write can no longer occur. Logging is disabled until the error is resolved.

503 **Unknown subsystem — do not know how to get details**
The message selected for the Get Details operation is not a message type that is recognized by the Notifier Tool. No operation can be performed because the Notification Tool does not understand the message.

504 **Notification System error: No additional text to display**
This message displays as the detail message for a Notification Tool message when there are no additional details. It is a placeholder stating that the message itself is all the data that is available about the error.

505 **AR System error: No ID/schema so cannot get details**
This message displays when a Get Details operation is requested for a message that is associated with an AR System schema or entry that no longer exists (within the AR System).

506 **Out of memory**
The system encountered an error during a call to allocate space. Generally, this error occurs when there are too many processes running or some processes have grown to occupy most or all of the available memory on your server machine. You can recover memory by shutting down unneeded processes. In addition, restarting processes that have been running for a while will help recover any space those processes have leaked over time.

507 **Cannot read existing log messages from notify list log file**
An attempt was made to load previously saved notification messages from the notify log file (`config.lst`). An error was encountered during the read. There should be an associated error message with additional information about the failure. In order to load these saved messages, you need to resolve the access problem.

508 **Cannot write to notify list log file**
An error was encountered while trying to update the notify list log file (`config.lst`). There should be an associated message with additional information about the failure. You need to resolve the problem reported in order to save a list of notifications.

511 **You must set the environment variable NTHELP (or ARHELP) to point to the help directory — this is usually the directory named help under the AR System install directory**
In order to use the on-line help system under the Motif environment, you must set the environment variable NTHELP to point to the directory containing the help files for the Notification Tool (or, similarly, to ARHELP for AR System help files). As noted, this is usually the help directory under the Notification Tool installation directory.

Notification Tool Errors

590 **Unrecognized command line option**
The specified command line argument is not a recognized argument for this program. Check the definition of the program for information about the valid command line arguments. The program will not execute with invalid arguments specified.

600 **DeregistrGlosTermation of user failed**
An error was encountered while attempting to unregister a user. There should be an associated error message with further details. The system will continue to exit the tool or connect the new user.

601 **Registration of user failed**
An error was encountered while attempting to register a user. There should be an associated error message with further details (often a bad password or an unknown user). The system will not change to the new user. If a user was previously connected, the connection for that user will be restored.

602 **Cannot create communication link to notify client**
An error was encountered while trying to establish a pipe between the Notification Tool and the `ntclientd` process. There should be an associated error message with further details. No connection is established to the server, so messages will continue to queue there until a connection is established.

603 **Cannot dismiss until have a valid registration**
The login dialog box cannot be dismissed until there is a valid user registered. This dialog is an indication that the tool is not connected and receiving messages. You can exit the tool if desired.

604 **Lost connection to the client-server — must re-login to re-establish connection**
The Notification Tool has detected a failure in the connection between the tool and the `ntclientd` process. You should be able to re-establish a connection by selecting Apply in the displayed Login dialog box.

605 **Cannot fork process to get details**
A failure was encountered while trying to launch a child process to perform a Get Details request. The child process was not launched. There should be an associated message that provides details about the failure. You will have to correct the reasons behind the failure and try the operation again.

606 **Exec failure — cannot find/execute support process**
A failure was encountered while trying to launch a child process. The child process was not launched. Either no process was found, or there was a failure running the process. There should be an associated message that provides details about the failure. You will have to correct the reason behind the failure and try the operation again.

607

Cannot get Flashboard details — unable to find Flashboards executables. Make sure that the Flashboards binary directory is in the search path.
While trying to perform a Get Details operation on a notification from the Flashboards system (tag is FB), the Flashboards User Tool could not be found. In order to see the details of the Flashboard that is associated with the notification, the Flashboards User Tool must be in your search path.

The system cannot find the executable in your current search path. Update the search path to include the directory containing the Flashboards User Tool, re-run the Notification Tool, and select Get Details again to continue.

Glossary

access control

Security feature that lets you limit the access users have to specific fields within a schema and to specific functions within the system.

See also access control group, permissions.

access control group

Facility of the Action Request System used primarily to define user access to the contents of a schema field. Each group can have its own member list defining users who belong to that group. The AR System defines a number of *special* groups: Public, Administrator, Subadministrator, Customize, Submitter, Assignee, and Flashboards Administrator. You can define additional groups through the Group schema. Once you have defined a group, you can specify the type of access that the group will have to specific fields within a schema.
See also access control, permissions.

access permissions

See permissions.

action request

AR. A collection of information that describes an event (transaction), such as a problem or a service request.

active link

A cause and effect relationship that you define on a per schema basis. Active links cause the Action Request System to perform specific operations in response to specific user actions. The AR System administrator can define active links that run macros, set fields to specified values, run independent

system processes, send an interactive message to the user, change field characteristics, or execute a DDE operation on a Windows User Tool. Active links run on the client machine.

administrator

Individual responsible for the management of the AR System, including setting up schemas, setting access rights for users, and designing the workflow process. To manage the AR System, you must be a member of the Administrator or Subadministrator group.

administrator default

Value that the administrator assigns to a field while designing the schema. When the user sets defaults, this value is used unless the user has assigned their own default. When a user submits an AR, the AR System automatically enters this value in the field unless the user has assigned their own default or has entered a different value.

administrator command

Menu extension defined by the AR System administrator using the Administrator Tool. Administrator commands allow users to invoke specific commands running on the server. (Administrator commands are not available from PC or Macintosh clients.) *See also* user command.

Administrator group

One of several special access control groups provided by the AR System. Members of this group have full and unlimited access to the AR System, including unlimited ability to create schemas, filters, escalations, active links, menus, and administrator commands. S*ee also* Subadministrator group.

Administrator Tool

The part of the AR System used exclusively by administrators (and to a lesser extent, by subadministrators) to set up the system for use by support staff and end users. This includes setting up schemas, setting access permissions (users and groups), and creating filters, escalations, active links, menus, and administrator commands.

administrator view

The layout of a schema that was designed by the AR System administrator. This is the view that users will see unless they customize their view.

admin server

The arserverd process that can handle *any* AR System operation. The admin server performs *all* admin restructuring operations, guaranteeing the serialization and integrity of data. There can be only *one* admin server process at any time.

API

Application program interface. A set of functions that provide application programmers with access to the full functionality of a product. The AR System API provides a complete interface to the AR System server.

AR

See action request.

arservtcd server

The controller server process that handles requests from clients for information on which socket to use for communicating with other server processes.

AR System client

1. Subset of AR System software necessary to allow a user to access an AR System server on the network and run the AR System tools on a local workstation.
2. Hardware (workstation, terminal, Macintosh, or PC) running the AR System client software.

AR System server

1. Full set of AR System software, including the arservtcd and the fast, list, and escalation arserverd processes. When installed on a workstation on the network, the server software provides access to the full feature set of the AR System and can be accessed by workstations, Macintoshes, terminals and PCs on the network that are running the AR System client software.
2. Hardware (workstation) running the AR System server software.

ARWeb license

Fixed or floating license that allows a user access to the ARWeb product.

assignee

The person who is assigned responsibility for resolving an action request.

Assignee group

One of several special access control groups provided by the AR System. This is an *implicit* group; users automatically belong to this group and, if they have a valid AR System license, are granted change access for ARs for which they have been assigned responsibility (their name is in the Assigned-to field).

broadcast operation

A distributed operation in which one source server simultaneously transfers data-only copies of entries to two or more target servers.

chained operation

A distributed operation in which one source server transfers an entry to a target server, and the target server in turn transfers the entry to another server. This operation is used in environments containing three or more servers.

character data type

Data type used for fields where you will be entering text. The AR System administrator can specify a maximum length for the field or leave the length unlimited. The administrator can also specify a pattern to restrict the data that users can enter or attach a character menu to the field.

character menu

A type of menu that the AR system administrator can create and attach to any character-type data field. Character menus can be displayed as list boxes or pull-right menus.

client

See AR System client.

command line options

Parameters that you can combine with the commands to start the User, Administrator, Notification, and Import Tools that allow you to specify how the tools will run. For the User Tool, you can execute a macro or open to the Query or Submit window. For the Administrator Tool, you can attach to a specific server or open the tool with a specific category displayed.

configuration

1.The process of setting up hardware and/or software so that it operates in a manner consistent with the needs of a location.

2.The physical setup of a device or devices.

3.The operating characteristics of software.

core field

One of a set of basic fields that are common to all AR System schemas. Additional limits, such as fixed or maximum sizes, are placed on some core fields.

custom extension

See administrator command, user command.

Customize group

One of several special access control groups provided by the AR System. This group grants users the right to customize their schema layout and create custom commands in the User Tool.

database

A collection of information maintained in the form of individual entries.

data type

Property of a field that determines what type of information the field contains. The choices are character, date/time, diary, integer, real, and selection.

date/time data type

Fields with this data type are limited to calendar dates and time.

DDE

Dynamic Data Exchange. This is a standard inter-application communication feature used in Windows applications. For more information, see your Windows documentation.

default

Administrator or user defined setting or value that automatically applies to a field if users do not supply a different setting or value when submitting a new action request.

default mapping

The mapping selected by the Distributed Server Option if the AR System finds multiple mappings which apply to the specified transfer criteria.

diary data type

Fields with this data type allow you to capture a history of the actions taken for an AR. Each multiple character entry is stamped with the time, date, and name of the user who entered the item.

distributed delete

To remove an entry from the AR System. In a distributed environment, a copy of an entry may be deleted on one server if the master copy is deleted on another server.

distributed fields

Fields you can add to an AR System schema which allow you to manipulate certain mapping controls. The amount and type of fields added to a schema is determined by the mapping type selected.

distributed processes

These processes control the action that is taken when filter or escalation criteria is met within a given schema. There are three distributed processes you can select as the Run Process action in a filter or escalation: Distributed-Transfer, Distributed-Return, and Distributed-Delete.

distributed return

A distributed operation that returns the latest copy of an entry, with ownership, to the requesting server.

distributed server

An AR System server that exists within a multi-server, distributed environment.

distributed transfer

A distributed operation that sends a copy of an entry, with or without ownership, from one server to another.

distributed update

A distributed operation that refreshes a copy of an entry on one server when the master copy, on another server, is modified.

duplicate entry IDs

A condition that may occur in a distributed operation when an entry transferred from the source server has the same entry ID as an entry on the target server. The Distributed Server Option provides several options to handle this issue.

dynamic menu

Menu that performs a query at the time a user selects the menu icon and uses the results of the query to build the list of menu items from which the user chooses.

email

Electronic mail. The AR System allows you to set up an electronic mail handler so that users can submit ARs through email if they do not have access to a User Tool or if the AR server is inaccessible. (If you are running the client tools on a PC, your PC must be equipped with an SMTP gateway to allow email submissions.)

end user

In the AR System, an end user is the person who notifies support staff of problems and service requests by submitting ARs.

escalations

Facility that tests server transactions at specified times or regular intervals to see if certain conditions are met and responds to the conditions by taking a specific action or actions. The AR System administrator can define escalations to perform actions such as notify an individual, run a process, set specified fields, or make an entry to a log file.

This facility is useful if, for example, you want to notify support staff when ARs are in the Assigned state too long.

escalation server

The arserverd process that, if enabled, handles all escalation operations.

export

Facility that lets you move schemas, filters, active links, menus, administrator commands, and mail templates to a file. Exporting is useful if you want to share schemas, filters, active links, menus, and administrator commands with another server or generate mail templates.

fast server

The arserverd process that, if enabled, handles the operations that generally run to completion quickly without blocking access to the server.

extension

See user command, administrator command.

filter

Facility that tests every server transaction to see if certain conditions are met and responds to the conditions by taking a specific action or actions. The AR System administrator can define filters that set fields to specified values, run

independent system processes, send an interactive message to the user, notify the user when the state of an AR changes, or make an entry in an audit trail log file. Filters run on the server.

fixed license

Write license that is permanently assigned to a user so that the user always has access to the AR System.

See also floating license, write license.

Flashboards license

Fixed or floating license that allows a user access to the AR System Flashboards product.

floating license

Write license that exists on a server and is allocated to any user who requests a license and who is defined in the User database as having a floating license type. If no floating license is available at the time of the user request, the user must wait until a license becomes available.

See also fixed license, write license.

FTS

See full text search.

FTS license

Fixed or floating license that allows a user to perform a full text search in any large text or diary field indexed for FTS.

Full Text Search (FTS)

Facility that allows a user to quickly search for information in large text or diary fields. The fields must be indexed and FTS-enabled by the AR System administrator, and the user must have an FTS license.

group access

See group type.

Group schema

Schema that lets you add new groups, delete groups, and modify group permissions.

group type

The maximum permission type allowed for a group. May be None, View, or Change. (Note that permission may be set below the group's maximum at the field level.)

guest user

An unregistered user with a limited set of capabilities (submit ARs and possibly review those ARs). Unregistered users may not be allowed at your site.

hidden field

A field that exists but is not visible in a user's view of the schema.

import

Facility that lets you share schemas, filters, escalations, active links, menus, and administrator commands that were created on another server. First, you must export the definitions from the server on which they were created to an ASCII file, then you can import the file to your own server.

Import Tool

The part of the AR System that lets you transfer data from one server to another.

integer data type

Fields with this data type contain numeric values between -2147483648 and 2147483647. (The range for a particular field may be limited by the administrator.)

license

See Flashboards license, fixed license, floating license, FTS license, read license, write license.

list server

The arserverd process that, if enabled, handles the operations of the AR System that may take some time to complete: AR Export, ARGetListEntry (high-performance database searches), and ARGetEntryStatistics.

login window or dialog box

Window that allows you to login to the AR System when you first start an AR System tool.

macro

A set of operations recorded for later execution. Macros are useful for automating frequently used or complex query operations.

mail template

Template that contains the fields that you need to fill in to submit an action request using electronic mail. Templates are generated by the administrator from existing schema using the export facility. (If you are running the client tools on a PC, your PC must be equipped with an SMTP gateway to allow email submissions.)

mapping

The parameters for a particular distributed operation, such as To and From servers and schemas, data control issues, and field-to-field mapping definitions.

mapping history

A history tracking record created when a distributed operation occurs. This record includes the date and time of transfer, source entry ID, source schema, source server, and the name of the specific mapping used.

master copy

The copy of a distributed entry which currently has ownership.

multiple schema views

Ability of an administrator to create different *views* of what users see when they bring up a schema, including hiding or re-arranging fields by changing a field's display properties.

multi-process server

A product that allows the AR System administrator to distribute operations among different servers and, consequently, improve the performance of the AR System.

For example, the arservtcd process routes the load among the Admin server, Fast server, List server, Escalation server and Private servers as appropriate, automatically starts the specified arserverd processes and restarts the arserverd processes if they terminate.

notification

An alert that tells you that an AR System event has occurred. The alert may be a system beep, flash, the display of a notice window, or the opening of the Notification Tool.

Notification Tool

The part of the AR System that alerts you when specific changes are made to ARs. Also referred to as the Notifier.

operator

One of a number of functions that let you define complex queries or build qualifications. The AR System operators are available through use of the query bar palette or the qualification palette or you can type them in directly.

pending operation

A distributed operation that is waiting to occur. Pending operations are typically due to a specified transfer interval that has not yet been met, or because there are network or server-related problems within the distributed environment.

permissions

Property setting that allows you to control who can view and change individual fields of a schema. You also set permissions for schemas and active links. Permissions are defined for each access control group. View permission limits group members to reading the contents of a field. Change permission allows group members to read and write the contents of a field. *See also* access control group.

pick list

See selection list.

private server

An arserverd process that, if enabled, provides dedicated access to system operations for specific users.

property

An attribute that is defined. For example, the properties of a field include its data type, physical characteristics such as length, and whether it is required or optional.

Public group

One of several special access control groups provided by the AR System. Every user is automatically a member of this view only group.

pull-right menu

See character menu.

query

Process that lets you select a subset of ARs according to search criteria that you define and then perform one of several operations on the selected ARs. *See also* query operation.

query bar

Part of the Query window that lets you define complex query criteria. Includes a palette of operators that you can use in the query you build.

query list

A list that includes a one-line summary of each AR matching a query.

query operation

Action that you can perform on the entries that match the criteria defined in a query. The possible operations are: Query List, Display, Modify, Report, and Delete.

query statement

A complete definition of query criteria constructed in the query bar.

Query window

The User Tool window that lets you search the database for ARs that match specific criteria and display the results of the search. You also use the Query window to view or modify an existing AR. *See also* Submit window.

range

Defines the upper and lower limits of acceptable values. For example, if a field's range is -10 to 100, you will be able to enter any number from negative 10 to positive 100 inclusive.

read license

License that allows a user to query the AR System schemas and submit new ARs but does *not* allow the user to modify existing ARs. *See also* write license.

real data type

Fields with this data type contain a floating-point number. The range is set by the administrator.

report format

The layout that you specify when you generate a report from an AR System query. You can format a report in columns or as a list of records. You can also choose selected fields to print or print them all. To create a more sophisticated layout, you can export the report to a file and import the file into a desktop publishing application.

reserved field

One of a set of fields defined with specific interpretations. You can use these fields in any schema, if desired.

return mapping

The specific field-to-field mappings used when an entry is returned.

row level access control

The ability to control a user's access to particular rows, or parts of rows, within AR System database tables.

schema

The definition of the data fields in a database. Each schema represents a database on an AR System server. The AR System comes with several sample schemas and you can build as many additional schemas as needed.

scroll bar

Window element that appears when there is more information to view than will fit in the window. You use the mouse to slide the scroll bar and shift the view area. A scroll bar at the bottom of the window lets you move the viewing area left and right. A scroll bar on the right side of the window lets you move the viewing area up and down.

selection data type

Fields with this data type present a set of mutually exclusive choices from which the user is to choose. The selections are displayed as radio buttons or as items on a menu.

selection list

List that appears as a result of an active link that performs a query that returns more than one AR. The selection list lets the user pick the appropriate AR so the active link can continue processing.

server

See AR System server.

status field

Core field that lets you keep a record as an AR moves through the various stages of the process you are using to resolve ARs. The defined states should reflect the workflow process.

status history

Information that shows the progress that has been made on an AR. You can view status history from the Display or Modify Individual window.

subadministrator

Individuals who have *limited* administrative access to the AR System. To be a subadministrator, you must be a member of the Subadministrator group and belong to a group with subadministrator access to a schema.

Subadministrator Group

One of several special access control groups provided by the AR System. Members of this group have *limited* access to the AR System. You must be a member of this group to be able to administer any schemas that your group has subadministrator access to and to create and administer filters, active links, and escalations connected to schemas that your group has administrative access to.

Submit window

The User Tool window that lets you enter the appropriate information to create and submit a new AR. *See also* Query window.

submitter

The person who submits an action request. The submitter's name is entered in the Submitter field.

Submitter group

One of several special access control groups provided by the AR System. This is an *implicit* group; users submitting ARs automatically belong to this group and, if they have a valid AR System license or if the Submitter Mode is set to Locked, are granted change access for ARs that are submitted with their name in the Submitter field.

support staff

Person or group responsible for resolving action requests. They assign and are assigned ARs, log their progress in appropriate fields, and use information stored in previous ARs to help resolve problems.

toolbar

Part of the Main window that allows easy access to some of the more commonly performed functions in the Windows Administrator Tool: New Server Window, New Object, Save, Align Left, Align Right, Align Value Left, Align Value Right, Align Top, Align Bottom, and Show Grid.

transfer

A distributed operation that sends a copy of an entry, with or without ownership, from one server to another.

transfer mapping

The specific field-to-field mappings used when an entry is sent from one server to another.

user default

Value that a user who has customize permission can assign to a field. When the user sets defaults, the AR System loads this value into the field. When the user submits an AR, the AR System automatically loads this value into the field unless the user has entered a different value.

user command

Facility that allows you to invoke an operating system command (or application capable of being run from an operating system command line) from the Execute menu of the Query window. Each user can define their own set of user commands. (User commands are not available from PC or Macintosh clients.) *See also* administrator command.

User schema

Schema that lets you add users to the AR System and specify the type of access each user will have.

User Tool

The part of the AR System that lets users enter new ARs and track them through the troubleshooting process. Users can also query the database for ARs that match specified criteria, generate reports, and modify existing ARs with the User Tool.

user view

What the user sees when they bring up a schema. If users have permission to customize their views, they are able to change the physical layout and other properties of the schema and schema fields as they appear.

variable

Data element that changes according to user input. In macros, you can include variable definitions that will cause the AR System to prompt the user for certain information when the macro executes.

version

The system release number. To display the version of the AR System that you are running, select About under the Help menu in the User, Administrator, or Import Tools.

view layout

The location of fields in a user's view of a schema.

wild card

Character that you can enter to represent other characters in a query. In query statements in character and diary fields, for example, you can use wild card characters to match single characters, strings, or characters within a range or set.

write license

License that allows a user to modify and save data on existing ARs as field and schema permission settings allow. Write licenses may be either fixed (permanently attached to a single user) or floating (allocated to users as required).

See also fixed license, floating license, read license.

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